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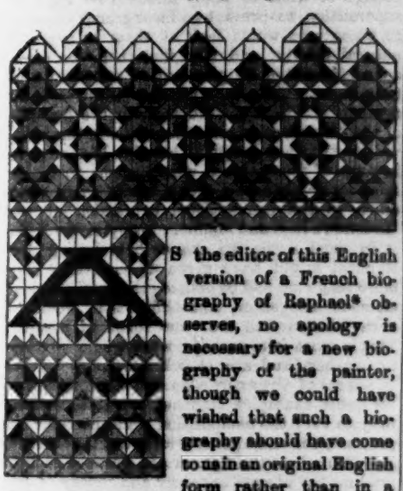
Muntz's "Life of Raphael."



IS the editor of this English version of a French biography of Raphael* observes, no apology is necessary for a new biography of the painter, though we could have wished that such a biography should have come to us in an original English form rather than in a translation, seeing that we certainly are not without those among our own countrymen who should have been capable of doing such a work exceedingly well. No translator's name appears to the present life; at least, we do not gather that the editor is the translator, and no other name appears. The translation is, however, fairly well and idiomatically done, with the exception of occasional slips, though somewhat dry and formal in literary style.

We cannot, however, look on the book with entire satisfaction, as in some points it does not fulfil all that we might expect from such a biography; and any work of this kind which is not entirely satisfactory is vexatious, because its republication in translation inevitably bars the way to the production of any better life from an English author, for, at all events, a long time to come. In one department the book is admirable,—that of the illustrations, which are very numerous, mostly well executed (except in a few cases, such as the engraving of the Sistine Madonna, which is certainly inadequate), and selected so as not only to give memoranda of many of Raphael's† greatest works in their complete form, but also a large number of the extant sketches and studies for them. But it is, to begin with, published in a very inconvenient shape,—that of one thick and unwieldy volume, very uncomfortable to read. That is a mere matter of outward form, not, however, altogether unimportant; for the size and shape of a book often have a good deal to do with its being more or less read. But the style of the book is heavy and its arrangement complicated, and rather wanting in concentration and continuity; and it is the work not of a critic, but of an enthusiast, who is continually going out of his way to urge and to illustrate the superiority of Raphael to all other artists. This is a very common fault in biographies, and certainly not least so in the biographies of artists: it is not unnatural that it should be so, since great admiration for a character is often the first moving cause towards undertaking the labour of writing his life. At the same time, the value of an artistic biography is very much impaired by such a spirit of indiscriminate admiration, even when the subject of it furnishes so much excuse for this weakness. It is more to the advantage of public education in regard to art that a biography of a great artist should present an example of calm and judicial criticism rather than of enthusiasm. M. Muntz's work, however, comprises a great mass of information, and is understood to be based upon the most recently discovered data, and therefore, as the expression is, "brought up to date."

In the early part of the biography the author appears to appreciate very correctly the degree and nature of the influence which Raphael's teacher, Perugino, exercised upon him. It was shown much more in regard to general feeling and choice of subject than in drawing and composition. In respect of these more purely artistic qualities, probably few great artists have ever been more early independent of mere educational influences, and this is the more remarkable in Raphael's case, because later in his career he showed, as is well known, a tendency to assimilate the style of Michelangelo after he had come under the influence of the latter, and so far as an artist of such opposite temperament could assimilate it. But from Perugino he seems really to have inherited mainly a leaning towards especially Christian subjects. If, in his early period, he painted a knight, it was always a Christian knight engaged in some sacred combat; the early work, "The Vision of a Knight," in our National Gallery, may be taken as a reproduction of the spirit of Perugino, although the two figures who stand on either side, exhorting or tempting the knight, already exhibit the peculiar grace which was to grow up to perfection (perhaps were to be carried sometimes to the length of an imperfection) in his later works. But in such a design as the cartoon of the Annunciation, from the Louvre Museum (engraved p. 71), Raphael seems, for the moment at least, emancipated from the stiff manner of Perugino, and treats the subject with a vivacity completely his own. The composition is a very graceful architectural interior, through the arcade of which is seen a stretch of country beyond. On one side is seated the Virgin; from the other side the announcing angel almost runs in, with outstretched wings and drapery flying behind him, as if on a joyful errand, allowing of not a moment's pause. The figure is essentially dramatic, a quality which Perugino certainly never suggested. The exquisite and well-known design of the marriage of the Virgin illustrates Raphael's power, at an early period in his career, of significant and pointed grouping of his figures, so that all seem in direct relation to each other, and each has its share in the whole action. M. Muntz draws attention in one paragraph to the very different character of Perugino's work in these respects. In his figures, of whatever intended personality, there always lingered the stiffness and artificialism bequeathed from Mediæval art. "An interval of centuries" seems to separate his Sibyls from those in the Sistine chapel, and his different personages "are placed beside each other, standing badly and not knowing what to do with their hands. They look at each other in a vacant sort of way, as if they had nothing to say to each other, and there is a want of the conviction and logic which go to make up a *chef d'œuvre*. But if the artist had placed them in different attitudes, the composition would have been neither better nor worse, and here is the difference between Perugino and his pupil, for all the creations of Raphael are by necessity what they are. The least change in them would destroy the whole symmetry and pervert the artist's meaning." A perfectly just criticism should have added that in not a few instances the grace of attitude and composition exhibited by Raphael is carried to the length of appearing too conscious, and conveying the impression that the actual and vigorous expression of the leading idea was with him, at times, too palpably second to the consideration of elegant and balanced effect; but the life and nature of his early compositions, as compared with those of his master, are no doubt among the most powerful testimonies to the individuality of his genius.

The main points in Raphael's life may be briefly touched on here, by way of refreshing the memory in regard to them. His father Giovanni Santi, was one who had also chosen what he himself called "the wonderful and most famous art of painting." He married the daughter of a tradesman of Urbino, and their son Raphael was born on March 28th, 1483. It seems probable that it was at about the age of sixteen that he was apprenticed to Perugino, and thus became in the first instance a disciple of what is known as the Umbrian school. His father had died some four or five years before this; from him, in all probability, he would have received his first instructions in drawing. The author gives a few notes as to the outer aspect of the town of Perugia, which are of some interest in themselves, but which also show evident traces of ignorance on the part of the translator, who has translated, apparently, the words "*rococo* style" into "rock-work style," and the "ogival" of the French into "ogive," instead of its English architectural equivalent, "Gothic." The palaces in the square, says M. Muntz, are a kind of architectural palimpsest; "eighteenth-century windows have replaced those of the Renaissance, which, in their turn, had taken the place of original Gothic windows. "While each epoch has made its

* Raphael: his Life, Works, and Times. From the French of Eugène Muntz, Librarian to the École Nationale de Beaux Arts. Illustrated with 154 engravings in the text, and 43 full-page plates. Edited by Walter Armstrong, B.A., author of "Alfred Stevens," &c. London: Chapman & Hall. 1882.

† We adopt in this article, for convenience sake, the spelling of the name as used in the book.

mark, the fourteenth and fifteenth centuries are predominant, and so Perugia retains the aspect of a city in the Middle Ages in which the Renaissance has left but a faint trace. Going down to the lower town and passing in front of the triumphal arch, which is buried, so to speak, amid these buildings, so different in style, the Middle Ages are still before our eyes. Nothing can be at once more irregular and picturesque than the steep and winding streets, which seem an insult to modern architects and their passion for symmetery and order. At each turn the broken nature of the ground produces the most singular contrasts. Turning one corner, a vast panorama unfolds itself, and a little further is to be seen a small plot of ground, encircled by ancient houses and bathed in sunlight. Pots of flowers, fastened by iron hoops driven into the walls, are suspended near the windows against the reddish-grey walls, the bright hues of pinks and wall-flowers coming out well against the brick and stone of the wall. Here and there, too, as at Assisi and other towns in Umbria, an old fresco with a likeness of the Virgin is to be seen under the cover of a ruined pent-house, adding a further touch of soft melancholy to the scene."

The touch of melancholy belongs only to the modern spectator and the modern aspect of the town, of course. We quote the passage as one of the not very many picturesque bits of writing in the book. It would be interesting to consider whether any traces of the scenery amid which his artistic education was acquired are to be found in Raphael's backgrounds and accessories. That the Mediæval architecture of Perugia would have had no other influence upon him seems certain enough; he, in fact, hated, or, at least, utterly despised, Gothic architecture, as completely as any artist of the Renaissance could.

Raphael remained here, where the Coronation of the Virgin and the *Sposalizio* were painted, until he went to Rome in 1508. In the meantime he was moving about sufficiently, to Siena, Urbino, Florence, and elsewhere, to increase his experience of artistic work, and prevent his becoming a mere disciple of the Umbrian School. He must have already, about 1504, have acquired a considerable reputation, as Pinturicchio sent for him to Siena to advise and help him in the frescoes he was painting in the Library of Cardinal Piccolomini. In October, 1504, it is certainly known that he went to settle for a time in Florence, in order to improve himself in his art in the city where there were the warmest interest in art, the keenest criticism, the greatest opportunities anywhere save at Rome, and the rivalry of other distinguished men. Here he formed a kind of arm's-length friendship with Michelangelo, and must have been well known in Florence, as he got many commissions there, though the author notes it as remarkable that there is not a line about him amid the references to artists in Florence at that day, that his name even is not to be found in Albertini's "Memoriale" of pictures and statues of note in Florence, though Raphael painted some of the finest and now most celebrated of his "Madonna" pictures while there, and also some of his finest portraits. His move to Rome was in 1508, where, from a sonnet, given in the original and in translation, he seems to have been deeply impressed at the sight of the remains of Roman greatness around him. Here he was at once employed by Julius II., whom he has immortalised in that wonderful portrait which seems to give one the whole history and character of the violent, irritable, self-willed old ruler, who was nearly as arbitrary about the artistic work done for him as about everything else, but had the great merit of wanting great things done for him, and not being content with small ones; and Raphael found also a munificent patron in the great merchant and millionaire, Antonio Chigi. The latter appears to have been a kind of Beckford of his time. "His splendid villa near San Giovanni Fiorentino failing to satisfy him, he had a palace built near the Porta Settimiana, and Julius II., when he went to inspect the progress it was making, remarked, in order to excite Chigi's emulation, that he doubted whether the building would be equal to that which the Riarios were then erecting. This made Chigi so jealous, that he vowed that his stables should be more sumptuous than the palace of the Riarios, and he kept his word." Raphael's great work for Julius II. was, of course, the paintings in the chambers of the Vatican. The "Camera della Segnatura," containing, among other masterpieces, the School of Athens, and the dispute of the Sacrament, having occupied the painter three years, he was commissioned to paint the room now known as the chamber of the Heliodorus, and in which the painter's art was dedicated to the symbolical representation of the power of the Church, and especially of the reigning Pope; for if Julius never said "L'Église, c'est moi," he, at all events, lived up to that sentiment. Under Leo X., utterly different man as he was to the stern Julius, Raphael experienced the same appreciation as under his predecessor; and Leo, in fact, urged on the completion of the Vatican decorations, inducing the painter to design for the Loggie also simultaneously, so that the whole might be finished together; the arabesque decorations being probably designed by Raphael, and then carried out by other hands while he kept a surveillance over them. From Leo X. came the commission for the immortal cartoons, far too fine in subject and execution for tapestry work, and concerning which we may think ourselves fortunate that we possess Raphael's original work, though regarded, when it was done, as merely a means to an end. To the latter part of his Roman life belong his two other greatest, or at least most renowned works, the Sistine Madonna, painted for the Convent of San Sisto, at Piacenza, and the Transfiguration, which was one of two altar-pieces ordered by Cardinal Giuliano di Medici, in 1517, for the Cathedral of Narbonne, the other commission being to Sebastian del Piombo, for his great picture of the "Raising of Lazarus." Raphael had originally, there is reason to believe, chosen the Resurrection of Christ as his subject, as a companion picture to the "Raising of Lazarus." Why he altered the subject does not appear; he evidently took the deepest interest in the new subject, from the number of extant studies for various figures in it. As every one knows, he died while almost still at work on it, on the 6th of April, 1520. The picture seemed then, no doubt, too precious to part with, and the Cardinal sent a copy of it (by Penni) to Narbonne, presenting the original to the Church of San Pietro, in Montorio; whence it was "looted" eventually by the French, and restored to Rome by us in 1815.

The critical remarks of M. Muntz in regard to Raphael's genius are scattered through the biography rather at random, and there is hardly any definite attempt to sum up his characteristics as a painter when considered in reference to the work of his contemporaries, or in regard to any broad theory of painting. In allusion to that large and beautiful class of paintings by which he is popularly known all over the world, his Madonnas, we notice (p. 158) some observations in regard to the relations of these to Nature. The author observes that Raphael, as an ardent student of Nature, found great difficulty in persuading himself to substitute for the research after life and truth, the search after expression (after the special expression demanded by the subject, we suppose, is intended). "It would have been easy for him to have expressed with more force the various sentiments represented by the Virgin, her Son, and St. John, and to have excited more lively though perhaps less deep emotion in the mind of the beholder had he, like the painters of Bologna, been content with arbitrary composition, and subordinated everything in the way of truthfulness to some theatrical effect. He was two or three times tempted to do this, notably in the *Terranuova Madonna* (in the Berlin Museum), and in various studies for the "Virgin in the Meadow," where he represents the infant St. John with his arms crossed and bowing before the child Jesus in an attitude of profound veneration, or kneeling before him with a fervour which has nothing child-like about it. But he discovered his error, and in the final composition all trace of exaggeration disappeared. His genius,—the robust and wholesome genius of the Renaissance,—had no sympathy with an abstraction, and his preferences were for a figure worthy to take its place in painting, and to have an individual life, while his subjects were in conformity with their character and their age. Thus, his children were real children, and though it may be thought that in some cases the sentiment of filial tenderness is overdone, there is never anything theatrical or artificial about them. This, if I am not mistaken, is the secret of the charm which the Florentine Madonnas of Raphael have exercised for three centuries, and of their eternal youth."

The author rather misses the point here. It is certainly true that if Raphael had made his Madonnas more distinctly ecclesiastical pictures, the interest in them would have depended greatly on the presence or absence of Church feeling and Church faith in the spectators. He remained, however, sufficiently near to nature to charm spectators of all countries quite irrespective of their creed. But the element of weakness in these exquisite works is that they are not decisively either one thing or another. They are not satisfying to the feelings of those who look for religious and devotional expression in such paintings, nor could it have been expected that they should be, seeing that they were painted in an age and for a society which had practically discarded religion and was living entirely for pleasure, intellectual or otherwise. This is the basis of the criticism which is passed upon them by some earnest-feeling writers on art in this country; that they are without earnestness, and give the impression of being painted with no deep feeling for their avowed subject. On the other hand, they are just far enough from nature, they have on them just enough of what to many minds is the taint of superstition, to present an incongruous element to those who would look at them as types of natural beauty, and who find them too much conventionalised to give entire satisfaction in that light. This is strikingly illustrated by comparing the first studies from life for some of the Madonnas, given in *facsimile* in this book, with the finished design. There is a life and verve in some of the sketches which seems to be refined away when the group comes to be toned down to the conventional expression of the Madonna's face and manner; lovely as the latter is in most cases, we cannot help feeling that Raphael might have given us something even more inspiring had he omitted the quasi-religious element altogether, something that would be more fulfilled with the "one touch of nature." This is more felt, perhaps, when we go from one to another, and are struck inevitably by the sameness of the expression and *motif*, though in his finest examples Raphael contrived wonderfully to vary the composition while carrying out precisely the same general idea; and the exquisite art with which the figures are grouped so as to produce the utmost harmony and repose of line without the appearance of contrivance cannot be too much admired. But it is not surprising that some should feel that they would rather have real breathing life and nature and feeling than so many of even these exquisite and graceful Madonnas:—

> "Her, San Sisto names, and Her, Foligno,
> Her, that visits Florence in a vision,
> Her, that's left with lilies in the Louvre—
> Seen by us and all the world in circle." *

The great Roman paintings, and the cartoons, stand on higher ground. In so far as regards form, composition, and expression, it may certainly be said that here Raphael reached the highest possible completeness of painting. While there is nothing startling, nothing abnormal or forced in these great works, there is at the same time no trace of that comparative insipidity and conventionality of attitude and expression which is the drawback to the enjoyment of the Madonnas. Socrates arguing in the School of Athens, Paul preaching, are figures which give us, with the intuition of genius, an ideal of the characters which we at once feel to be true, and which, once seen, can never be forgotten. There are grander and more powerful conceptions by Michelangelo than any that Raphael has produced, and he was unquestionably the greater *man*; but it must always remain a question whether the man who produced occasional colossal conceptions amid a good deal which was forced and abnormal in taste and feeling, was greater than he who, like Raphael, was able to produce so many great works in which such an even balance of power and beauty was maintained. One defect Raphael shared with his giant rival,—he never was a great colourist, and he was not, even in one sense, a great painter; he was a great designer and draughtsman: he had not that power over richness of tones and surfaces which was the glory of the great master of the Venetian school. Titian was an incomparably greater *painter* than Raphael, but it may be questioned whether he was so great an artist, in the intellectual qualities of art, and the question comes with all the more force when we remember the age at which Raphael died.

M. Muntz gives some interesting particulars as to what he has been able to ascertain in

* Browning.

regard to Raphael's method of fresco painting, and the time which his great works in fresco occupied. The preparation of the cartoon, and the transference of it to the plaster by pricking and pouncing, was, of course, the ordinary operation in such cases; Raphael seems to have touched in the outline with the brush afterwards and availed himself of this opportunity to remodel it if necessary. As to the time occupied in execution, M. Muntz makes these observations:—

"It is impossible to say how much time Raphael devoted to the execution of his drawings and cartoons, but so far as regards the mural pictures themselves, the bevelled edges of each day's work,—an arrangement which was necessary in order that the mortar of one day should adhere to that of the next,—enable one to follow the progress of the work step by step. I have calculated that in the *Incendio del Borgo*, the large group to the left, composed of four figures, all more than life-size, was painted in a week. In the "School of Athens" each figure took less than a day.* The architectural parts were executed with prodigious rapidity, and as Raphael generally had a very large surface prepared by the mason, the mortar was often still too wet when he began to paint, the consequence being that there are deep cracks in various parts of the portico. The after touches, it is true, must have necessitated an addition of work, and this is especially noticeable in the "Parnassus," where the sky is fresco, while the laurels which overshadow the Muses are in *tempera*, the consequence of which is that the colour comes off on the finger at the slightest touch. But about 1516 Raphael had become so proficient in fresco work, that he rarely had occasion to go over the ground a second time."

Among the later chapters of the work is a very interesting one on "Raphael and the Antique," in which the author considers the effect which the study of antique models exercised upon the painter's later style. He is, no doubt, right in tracing to this influence the change from the paintings of the Florentine period, the graceful and rather sentimental Madonnas, to the far more "Classic" and, as in one sense it may be called, Pagan, style of his great Roman paintings. We must pass over this, however, and say a word as to the chapter dealing with Raphael as an architect. The part which he played in the construction of St. Peter's was in reality, of course, very small; but his appointment as architect was evidently highly valued by him as a post alike of great honour and great interest, and led to his systematically studying what were then regarded as the true principles and models of architecture; much more systematically than he would probably have done otherwise. He felt fully the responsibility of the position, writing in one of his letters that the Pope, in thus honouring him, had also laid a great burden upon him, adding,—"I hope I shall not fail, especially as my model pleases his Holiness, and has obtained the sanction of many competent judges; but I aim higher than this. I wish to discover the principles of the beautiful forms of the antique. Perhaps my flight will be like that of Icarus. Vitruvius gives me much enlightenment, but not enough." The architecture introduced into many of his paintings shows a strong feeling for the beauties of Classic architecture. But of the power of Gothic architecture he had not an idea. M. Muntz quotes at some length his opinions thereon, expressed in the "Report" addressed to Leo X., in which he proposed (if the Report is his, as there seems reason to believe it is) to collect the measurements of every existing Roman building of antiquity, and by means of these to attempt a reconstruction of the capital of the Cæsars. The Report, after deploring the utter extinction of architectural art with the fall of Rome, continues, "this German architecture then became general; an architecture opposed in every way, as we can now see, to the beautiful style of the Romans and ancients. The latter, putting out of the question the main portion of their edifices, executed cornices, friezes, architraves, columns, capitals, bases, of the greatest beauty; all the decoration was as good as possible. The German, on the contrary, whose manner is still in favour with many, often used for ornaments or supports stunted badly-executed figures, strange animals, or figures and foliage treated without any taste whatever; nothing could be more opposed to good sense. Still this architecture has a meaning, it is an imitation of uncut trees" (!), "of which the branches make, when bent and tied down, sharp-pointed two-centred arches. Although this meaning may not be completely condemned, it lays itself open to adverse criticism. Indeed, the huts described by Vitruvius, in his dissertation on the origin of the Doric style, with their beams joined together, their posts for columns, their pediments and roofs, are much stronger than pointed arches which have two centres. Do not mathematicians teach us that a half-circle, every point of which thrusts towards a common centre, can support a much greater weight? Besides its weakness, the pointed arch has none of the grace of the perfect circle; Nature herself uses no other form than the latter."

Apparently, in Raphael's theory, architecture was simply the application of ornament to a building. It is curious to find so great an artist laying down principles so precisely the reverse of those which really characterise true architecture, though, of course, one could not expect otherwise in the age and under the influence amid which Raphael lived; it is still more curious to find his modern biographer quoting such criticism with evident sympathy, and citing the opinion of an eminent living French writer (name not given) as to the irrational character of Gothic architecture. Such observations show how much some writers on art are still at sea about architecture. But Raphael's practice was somewhat better than his theory, and he had more true architectural taste and perception than Michelangelo evinced. His well-known Pandolfini Palace, of which we reproduce the view given in M. Muntz's book,* shows, in its powerful treatment of the rusticated doorway and angles, and the simple but suitable arrangement of the windows, a true feeling for architectural expression, free from pretence or affectation, and arising naturally out of the necessary features of the building.

It is singular how little we seem really to know about the man Raphael, in spite of the prominent place he filled in an age not so very remote from our own, and abounding in documentary record. A few letters give evidence of that amiable and affectionate disposition with which he was universally credited; and a romantic halo hangs about the story of his "Fornarina," accompanied by an uncertainty as to the real nature of the attachment and the real character of the evidently plain and uncultured woman who has won a kind of nameless immortality in connexion with his name: but our personal knowledge of him is singularly limited in comparison with the marvellous qualities and fecundity of his artistic achievements. We carry in our minds the figure of a person of charming manners, and of a delicate physical beauty strangely at variance with his immense artistic activity; but we have little definite idea as to the speech and manners and daily life of the slight, gentle, ethereal-looking man who has filled the world with the fame of works which, to quote our biographer, "breathe an exquisite goodwill, a serene and profound faith in humanity, and a love for all that is pure, and great, and noble."

* Of course, the time occupied in the broad handling of a fresco style cannot be put in comparison with that required for the delicate and detailed realistic treatment of flesh, for instance, in oil painting.

* See p. 51.

THE PRUSSIAN ACADEMY OF ARCHITECTURE ON FIRE IN THEATRES.

AFTER the disastrous catastrophe in the Nice Theatre in March last year, when over eighty persons lost their lives, Prince Bismarck, by command of the German Emperor, requested the Prussian Academy of Architecture to draw up a memorandum embodying its opinions as to the measures requisite to ensure safety from fire and its consequences in theatres. It has only been since the far more terrible calamity at the Ring Theatre in Vienna that this document has seen the light.

This memorandum, which is entitled a "Summary of the Regulations and Arrangements serving to Diminish Danger from Fire in Theatres," we give in translation as follows:—

I. *The Sites of Theatres.*—Large theatres should be erected on open situations, and should be kept detached and separated from other buildings by the widest practicable intervals. According to the police regulations respecting buildings in Berlin, all new theatres are to be divided from other buildings, and from the boundaries of the neighbouring sites by an intervening space of 51 mètres in width. A smaller interval than this is allowable if the neighbouring buildings are quite fireproof. (According to the police regulations in Paris, 3 mètres' distance only is required when the neighbouring walls are fireproof.) In Berlin, new theatres, of small size, are allowed to be built contiguously with other buildings, provided the walls are fireproof and of sufficient thickness. The minimum thickness to be recommended ought, as prescribed in the Paris regulations, to be not less than 25 centimètres. Herr Fölsch gives 2 mètres as the height to which the fireproof walls ought to rise above the level of the roof; but a smaller height, say one-half or six-tenths of a mètre, would be sufficient. Where existing theatres are separated only by narrow lanes or courts from the neighbouring houses, the latter should be required to provide all the windows and doors opening on to the theatre with iron shutters or curtains.

II. *On the Construction of Theatres in General.* The outer and party-walls of theatres ought all to be built of massive masonry; floors and ceilings ought, as far as practicable, to be fireproof; corridors especially ought to be protected by vaulted ceilings. In the construction of the roof iron ought to be employed, and the use of wood avoided to the utmost practicable extent. (The Paris regulations prescribe that the ceiling above the auditorium must be a fireproof structure, entirely of iron and plaster.) So far as wood is employed for this purpose, it should be impregnated with some material protecting it against the flames. The experiments which Herr Fölsch last year made with a preparation of this nature in Berlin were attended with very favourable results. There may be real obstacles and sound objections to the applications of such protective preparations to curtains, stage properties, dresses, &c., but there is no reason why such means should not be used for impregnating the wood employed in the construction of the building.

III. *Respecting the Internal Arrangement of Theatres.*—Both the auditorium and the rooms used by all persons employed in theatres must be separated from the stage by fire-proof walls. All doors in these walls are to be of iron, and made so as to close automatically. The opening between the stage and the auditorium,—that is, the front of the stage,—must be provided with an iron curtain to shut it off from the rest of the house. The utility of an iron curtain has been disputed in several quarters. But it remains beyond doubt the most effective means of preventing a panic seizing the audience in case of an outbreak of fire on the stage. According to the information we have received, curtains of this description have recently rendered excellent service in the Court Theatre at Munich, and in the new theatre at Frankfort-on-the-Main. Such a curtain prevents the smoke penetrating into the auditorium, while, in the absence of such an expedient, the strong current of air moving from the stage to the chandelier draws the smoke and gases from the fire into the body of the theatre. Another point is that the store-rooms for the stage decorations, and so forth, ought to be kept separate from the theatre. The lodging of servants or *employés* on the theatre premises, too, should be avoided or restricted to the utmost practicable extent.

Most particular attention must be paid to the construction of the stairs, corridors, and passages of egress. Stairs must be built fireproof, and vaulted underneath. They should be in long flights, without turning, and have strong handrails on either side. As regards the stairs for the auditorium more especially, they ought to be capable of being easily found, and should be arranged so that the public will leave the theatre in as many directions as possible, radiating from the centre of the building, and so that they may reach the open air by the shortest possible line. The minimum dimensions for the width of the stairs required by the Paris regulations are 1½ mètre for the upper flights, and widening in the lower flights in proportion to the number of persons who would pour into them. As regards the width of the passages in the pit, and the total breadth of the ways out into the corridor, it is necessary that definite dimensions should be assigned, bearing a proper proportion to the number of seats. In Paris, the requirements are generally either a central passage of 1½ mètre, or two side gangways of 1 mètre in breadth, while the openings on to the corridor must have a total breadth of 6 mètres, and be as near as possible to the vestibule.

The corridors in all tiers should be of adequate width, and should not be used as cloak-rooms. The latter should be immediately adjacent to the corridors, and so arranged as not to give rise to opposite streams of people. The doors of all the exits must open outwards. If the doors are double or folding, then the wing which is generally unopened must be capable of being opened as easily as possible. The Paris regulations require that the total width of all ways out into the street shall be six mètres for the first thousand seats, and three-fifths of a mètre for every additional hundred. Herr Fölsch, for the same purpose, assigns two mètres for 500 seats, and 35 centimètres for every hundred more. He considers that every house ought, under ordinary conditions, to be capable of being cleared in four to four and a half minutes. Further the exits must, as much as possible, lead away from the stage, so that in case of a fire breaking out there, no person in the house should, on his way out, be forced to go nearer to the flames, but that every step should take him away from them and nearer to the open air.

The windows ought nowhere to be defended by iron gratings. By the Paris regulations, iron ladders, regardless of appearances, must be fixed to the side fronts and in the inner courts of the building so as to facilitate escape in case of necessity.

All approaches to the roof must be closed by iron doors, closing of themselves. The gas is to be arranged under three different and independent groups, one for the auditorium and connected apartments, another for the stage, and the third for the managing department. The tubes must never be of any metal but iron; the gas-lights are as far as possible to be fixed and not with movable arms or brackets. The Paris regulations further require that the lighting of the curtain shall be effected by means of flames burning downwards and defended by guards; and that the wires for electric lighting shall be contained within inflammable casings, as, in case of interruptions the wires acquire very high temperatures.

The arrangements for warming the building must be according to some system of central heating by pipes. Iron stoves must be prohibited under all circumstances.

Theatres ought to be provided with a water supply in all parts, and under high pressure. Where the pressure is not sufficiently high to reach the highest portions of the edifice, there ought to be on the roof reservoirs of sufficient capacity or so-called compressors. The water-cocks ought to be sufficiently numerous, and part of them should be as near as possible to the stairs, so that the firemen may be able to keep their position as long as possible. The Berlin regulations of June 29, 1881, lay it down that the arrangements for extinguishing fires are to be provided and kept in order in accordance with the rules of the City Fire Brigade department. It appears desirable that definite principles should be settled as regards theatres.

There has been a good deal of opposition to the proposal for a so-called artificial shower on the stage. In several theatres, however, as Munich, Gotha, and Frankfort, this system has been applied, and has done good service. There is, perhaps, some truth in the objection that the apparatus is difficult to manage, and that the water does not at once reach the spot where it is wanted. On the other hand, the apparatus offers the advantage of continuing to act automatically after firemen have been compelled by the flames to withdraw from the interior of a burning building. That this apparatus cannot be regularly tested without doing much damage to the stage through the quantity of water it pours down, is, of course, an objection to it. But we must remark, that if the pipes are of copper, there is no need to fear that the fine apertures will be closed by rust. Nor is it probable that dust or any other cause could close the openings so as to prevent the water coming out when required.

In the above we have touched upon the essential points connected with the architectural regulations and arrangements for the prevention of fires in theatres. What influence the eventual introduction of the electric light as the exclusive source of illumination in theatres may have upon the question of danger from fire in such buildings cannot at present be determined. It may be remarked that it will probably not be found possible to draw up regulations under the three heads adopted in this memorandum, because the necessary measures for cases under different heads will be more or less the same This, however, will present no great difficulty to the drawing up of a code of rules to cover every essential requirement as pointed out in the preceding remarks.

Since the preceding memorandum was published in the *German Official Gazette*, it has been announced that the Architectural Academy is engaged upon a much more detailed report upon the same subject. In this it is availing itself of the assistance of the Prussian Provincial Administrative Boards, as well as of a number of distinguished architects and other experts, more particularly persons acquainted with the requirements of the stage and management of theatres, as well as with the extinction of fires. This document will probably be some time in preparation, but, when ready, will be published by the Prussian Ministry of Public Works.

THE BURLINGTON HOUSE LOAN EXHIBITION.

THE Dutch pictures of the year include, besides the examples specially mentioned in our last notice,* a good many satisfactory, sometimes more than satisfactory, specimens of well-known painters of the Dutch school or schools: Teniers and Ostade, Both, Cuyp and Hobbema. We have seen some such splendid examples of these and other Dutch masters here in previous years that we cannot expect to find this department of the exhibition so brilliant as it has sometimes been. The most important Teniers is the "Kermesse" (88), from Buckingham Palace,—a composition of medium size, but containing a crowd of figures, of whom the centre group is thrown out in full and strong light in a very effective manner. The execution of detail is not, however, so crisp and powerful as in some otherwise less important works, such as the "Chapeau Rouge" (85), and the "Old Woman peeling Turnips" (108). The "Village Fête" is one of the painter's few large-scale pictures, one of a class which never seem to us pleasing on account of the artist's dingy and dreary colouring of the landscape, which in this case, however, is pleasing as to mere drawing, though the colour is no better than usual. A good specimen of Metsu (92), "Lady pouring out Wine," is recognisable at once by the figure in the red boddice which he has so often painted; it is a small work with three or four figures only. Ostade's "The Nativity" (91) is a very fine specimen, not only for the usual qualities of rich tone and powerful effect, but for a certain rude pathos in the countenances of the Dutch boors who come to adore the infant Saviour. The Ostade lent by the Queen, "A Boor and his Wife in an Arbour" (114), differs a good deal from Ostade's usual manner in the brighter tone and the absence of that deep shadow effect which he usually was so enamoured of; the figures and accessories are painted with great minuteness. Frank Hals is represented by one of those bold dashing "Portraits of the Painter" (87) which he was so fond of producing; and there is a small powerful study of a head by Rembrandt (100) with the paint loaded on in thick lumps so as almost to produce the effect of relief. Rembrandt's well-known and extraordinary conception of "Christ and Mary Magdalene" (117) is lent from Buckingham Palace; with some touches of the painter's genius, it is too absurd when considered as an illustration of the subject.†

There is a good specimen of that overrated artist, Hobbema (62), a woodland scene, looking like a Constable with all the air taken out of it. Another example (80) shows a somewhat warmer tone than that cold, deathlike grey which was Hobbema's usual translation of nature's light. A more interesting landscape than either of these is a small one by Paul Potter (69), a quiet composition with a straight sluggish stream stretching away past some buildings, seen in warm evening light; it has probably been retouched or repainted in parts. There is a powerful little cattle study by Potter, "Bull and Cows" (112), in his best style of draughtsmanship. There are various Cuyps, with solemn and lazy-looking horses bestridden by equally lazy riders; one or two good Van der Neers; some Boths that are not much; in Gallery IV. is a fine Wouverman, "The Miseries of War" (229), a battlefield from which victorious horsemen are hauling away captives from their burning houses, deaf to the entreaties of women and children: this is not only a very fine and effective work as a whole, but the separate horsemen are painted with even more than Wouverman's usual force and fidelity in dealing with such figures. In the same room is Rembrandt's life-size, and, in its way, capital, study, "The Portrait of his Cook" (234); the left hand is bad in colour, but the figure as a whole is remarkable as a hasty and powerful transcript of character.

The major part of Gallery IV., as usual, is devoted to specimens of early Italian painting, many of which are of the greatest interest. Sandro Botticelli's "Virgin, Child, and St. John" (196), a circular composition, is almost enough to justify the exaggerated praise which has been bestowed on this artist of late years, so delicate and luminous is the colour-effect, so *spiritual* the figures, so light and floating the draperies. It is difficult to believe the "Atalanta's Race" (195) to be by the same painter; curious it is, but feeble and ugly. Sir F. Leighton contributes a beautiful specimen of the peculiarly decorative art of Pietro da Sieva; mild, gentle heads, with long almond-shaped eyes set in a ground of decorated gold. This highly artificial picture is happily contrasted with Lucas Cranach's "Lucretia" (192), a charming painting of a German flaxen-haired *mädchen*, plump and rosy, but with a gentle sorrow on her face, a slight gasp between her parted lips, as she prepares to plunge the sword into her bared bosom. The execution of her costume is magnificent; the landscape seen through the window is almost sublime in its absurdity. Next we have Quentin Matsys, with his curious and elaborate "Adoration of the Magi" (193), where a crowd of figures of two opposite types of face, hook-nosed and bearded men, and square-faced and snub-nosed men, press forward, the latter bearing in their hands jewelled golden vessels, on the elaboration of which the artist has expended himself *con amore*. It is to be noted in such a work as this, absurdly materialistic as it is in some ways, that the painter does attempt distinction of race and national character in his figures; he does not, like the Ostades and Jan Steens, bring in only the men he sees in the street every day. This is observable also in Van der Weyden's painting of the same subject (189); there is a certain definite attempt at idealising. Carlo Crivelli's "St. George and the Dragon" (194) has the usual characteristics of the painter; the horse's furniture is realistically represented in embossed leather and nails let into the picture; the sky is an expanse of gold, the horse has no muscles, and his skin falls into curious creases at the bendings of the limbs; yet through all this antiquated mannerism we discern a spirit and power in the conception, in the manner in which the terrified horse turns his head as far as possible away from the dragon, and the determined action with which the knight swings his two-handed sword.

A very remarkable painting is that belonging to Mr. Maguire, and attributed (with a query in the catalogue) to Holbein, "Christ Mocked" (198). If it be not by Holbein, and in some respects it certainly differs much from the painter's usual style, it is at least difficult to say to what other known painter the figure on the right could be attributed. It is a picture containing only five half-length figures, in the countenances of two of whom the expression of scorn is most forcibly, almost painfully realised. The execution is slighter than is usual with Holbein, if it be his. Among other works in the same room, Andrea del Sarto's large painting of the "Sacrifice of Isaac" (208) is notable for the finely-drawn and conceived figure of the kneeling Isaac, a naked youth, behind whom rises the dignified full-robed figure of Abraham; the two figures are blent together in that perfectly consentaneous unity of line and action which is seldom seen in such perfection except in the compositions of Raffaelle. Paris Bordone's "Hephæstus and Thetis" (211), belonging to Sir F. Leighton, is a fine life-size group, very warm in colour, and exceedingly effective, though there is nothing remarkable in the conception: indeed, the Hephæstus is but a very weak ideal of the god of the forge and anvil. Holbein's portrait of "Sir Thomas Cromwell" (222), Rubens's free and powerful study for the altar-piece of Antwerp Cathedral, "The Raising of the Cross" (220), and a brilliant flower-piece by Van Os (225), are among the attractions of this room; and in a central position on one of the walls is a splendid specimen of

* See p. 3, *ante*.

† Why is the artist called in one place in the catalogue "Rembrandt van Rhyn," and elsewhere "Rembrandt," as if they were two different men?

the peculiar powers of Panini, "The Piazza Navona at Rome" (209), lent by the National Gallery of Ireland. This, representing the occasion of a great festival, is a splendid piece of architectural painting on a large scale; but it is equally remarkable for the minute and careful painting of the crowd of small figures which occupy the space in front of the buildings. From the catalogue we learn that "the scene represents the Piazza on the occasion of a fête given there on November 30, 1728, by the French ambassador, the Cardinal de Polignac, to celebrate the birth of the Dauphin, son of Louis XV. Panini himself designed and arranged the fête, and painted the picture for the Cardinal, whose portrait is introduced standing in the centre."

Among the important pictures in the large room which we have not previously mentioned is an unquestionably genuine repetition (146) of Titian's "Venus and Adonis," belonging to the Earl of Normanton, and little, if at all, inferior to the National Gallery picture. Paolo Veronese's "Venetian Lady playing a Guitar" (153), lent by Mr. Woolner, is a sumptuous portrait of a sumptuous dame of the Venetian type. On the south wall is a small but notable collection of landscapes. Two Turners, "Pope's Villa" (175) and "Sea Coast, Hastings" (179), are hung as pendants to one another; the latter represents the painter's early style of cool colour and wonderfully fresh aërial effect; the former is probably somewhat later, and gives a beautiful and serene view of the Thames with the villa and wooded banks in the middle distance, bathed in the soft mellow evening sunshine. Two landscapes, with figures by Gainsborough, bear the same title, "The Cottage Door," (172, 177); they have somewhat the same characteristics; in No. 172 the concentration of light on the group of figures is effective, certainly, but somewhat too unreal and contrived. These appear, it must be confessed, somewhat tame and mannered when compared with Constable's splendid work, "The Lock," referred to in our former notice. There is a large Gainsborough landscape in Gallery V., the property of Lord Penrhyn (265), representing a composition which the painter has repeated several times in its main features. The composition is beautiful, and the glimpse of the distance between the trees is very fine, but the mannerism of Gainsborough's trees is a great defect in this as well as in others of his landscapes. The large Gallery also contains two Claudes, a "Landscape" (145) and "The Pilgrimage of Sta. Paula" (149); the latter is one of Claude's sea-pieces, with architectural foreground, which represent a very mannered, though pretty, style of sea-painting. The former is a work in his finest style, remarkable for the aërial perspective of the hazy golden distance; it illustrates also Claude's effective manner of using buildings at various degrees of distance to increase the effect of perspective; the most distant building, only a small cube breaking the line of the landscape, carries on the eye far away over the scene, and yet far beyond this are successive planes of country receding into extreme distance. The value of the buildings in helping this idea of distance is perhaps even more evident in the "*Liber Veritatis*," where we have not the additional aid of colouring. A small landscape by Reynolds (184), is an interesting point in the exhibition, and a very beautiful little composition.

We omitted to mention before, Reynolds's picture of "The Piping Boy" (185), a half-length of a beautiful child with long fair hair, followed by a dog: in the warm and golden colour this painting suggests comparison with "The Strawberry Girl," and would form no bad pendant to it, though a little more ideal in feeling. It has probably faded a good deal, or the drapery is deficient in finish and texture; but the general style of the work is in Reynolds's finest manner. Among the curiosities of the exhibition is an interior with figures, by Turner (30), in which the effect of bright sunlight on the miscellaneous pile of articles in a laboratory is the object; in this respect it is a remarkable specimen of Turner's power of painting light: the figures are very poor, and probably introduced only to give a name to the painting.

St. Bartholomew's Hospital.—We understand that Messrs. Dunn & Soman have purchased for St. Bartholomew's Hospital fifteen acres of land at Swanley for the erection of a convalescent home.

AN ORIGINAL FELLOW OF THE ROYAL SOCIETY ON SMOKE ABATEMENT.

Is it not calculated somewhat to arouse surprise that the great fog and smoke nuisance with which London has allowed itself to be inflicted each year as winter sets in should only now, after 200 years and more have passed, be the subject of anything like serious consideration? It was not until matters had reached a culminating point that it was deemed advisable to urge the adoption of some steps towards the remedy of so self-inflicted an injury. Whether the results expected by the promoters of the Smoke Abatement Exhibition will in any measure be attained is difficult to decide; in the meantime, King Fog rules supreme, and even in these revolutionary days seems to find his regal power in no way threatened. We have endured his tyranny for over two centuries, with that placid and proper submission to the powers that be which so distinguishes the English character. Democratic complainers against the nuisance find themselves in the minority, not but what there have been champions for the popular rights of hygiene and common sense.

Just 220 years ago John Evelyn published, "at the command of his Majesty" (Charles II.), an interesting tractate, which, as may be imagined, is now rare, and which he termed "Fumifugium; or, the Inconveniences of the Ær and Smoak of London dissipated, together with some Remedies, humbly proposed by J. E., Esq. MDCLXI. (1661)." As may be gathered from the title, Evelyn's is a warm attack on the fog and smoke nuisance which as far back as that date appears to have rendered the British capital infamous. The fervent words of the refined old diarist curiously chime in with the sentiments of many in the present day, and it is for this reason, we trust, that a summary of the quaint little quarto tractate may prove not uninteresting to our readers. It will form one more attack, supported by good authority, on a public nuisance, which it would indeed astonish old Evelyn, that accomplished gentleman of the seventeenth century, to find that we, his advanced and civilised descendants, should not yet have abolished from our noble city.

In his "Dedication," Evelyn explains how the idea of his little work was suggested by noticing in walking one day in Whitehall "a presumptuous smoak to be issuing from one or two tunnels near Northumberland House and not far from Scotland Yard, and which did so invade the Court that all the rooms, galleries, and places about it were filled and invested with it." This "pernicious accident" he takes as the theme of his discourse, and appealing to the king's love of beauty, urging the injury caused by the smoke, he proceeds to speak of its injurious effect on the health. His "Dedication" dismissed, it is "to the reader" that his remarks are henceforth addressed. It is curious to find a writer who knew the Continent so well as Evelyn expressing already, two centuries ago, his disappointment at "the small advancement and improvement of publick works in this nation, wherein it seems to be much inferior to the countries and kingdoms which are round about it," and urging the adoption of "whatever any of our neighbours enjoy of more universal benefit for health and ornament, in sum, whatever may do honour to a nation so perfectly capable of all advantages." It is precisely the sentiment of so many in the present day on this very fog question, the amazement that "where there is so great an affluence of all things which may render the people of this vast city the most happy upon earth, the sordid and accursed avarice of some few particular persons should be sufficient to prejudice the health and felicity of so many. That men, whose very being is aer, should not breathe it freely where they may, but condemn themselves to this misery, is strange stupidity." "That this glorious and ancient city," continues our author, writing in the day when London resembled some of the few old towns still left, though in this direction at least we have made some advance since Evelyn's time, "which from wood might be rendered brick, and, like another Rome, from brick be made stone and marble, which commands the proud ocean to the Indies, should wrap her stately head in the clouds of smoke and sulphur, so full of stink and darkness, I deplore with just indignation." Though progress has of late years been made, Evelyn's complaint, we are afraid, still holds good as applied to too many parts of the metropolis. "That the buildings should be composed of such a congestion of mishaps and extraordinary houses, that the streets should be so narrow and incommod in the very centre and busiest places of intercourse (etc.), are particulars worthy of reproof and reformation."

With an original member of the Royal Society* it may be imagined that the enumeration of the properties of "aer," the influences of climate, take in the discussion their due place, but the chief point is to show the importance of pure air; food we eat only at stated times in the day, while the air we continually breathe whether asleep or waking. "From these and the like considerations it might well proceed," continues Evelyn, enunciating a sentiment that cannot too well be borne in mind, "that Vitruvius and the rest who follow that master builder mention it as a principle for the accomplishment of the architect, that being skilful in the art of physick amongst other observations he sedulously examine the aer and situation of the places which he designs to build, the inclination of the heavens, and the climate, *sine his enim rationibus nulla salubris habitatio fieri potest.* There is no dwelling can be safe or healthy without it." That these considerations were observed in the original foundation of London is unquestionable; but returning to the smoke-polluted air of the metropolis, "it will be found to be but something extrinsical and accidental only which naturally does not concern the place at all, but which may be very easily reformed without any the least inconveniences." This "something" Evelyn, without more ado, roundly states to be "that Hellish and dismall cloud of Sea Coal which is not only perpetually imminent over our head, but is so universally mixed with the otherwise wholesome and excellent aer, that we withal breathe nothing but an impure and thick mist accompanied with a faliginous and filthy vapour which renders them obnoxious to a thousand inconveniencies, corrupting the lungs and disordering the entire habit of their Bodies, so that Catharrs, Phthisicks, Coughs, and consumption rage more in this one city than in the whole Earth besides."

Follows then a short dissertation on the nature of smoke, of which the most noxious of all, our author points out, is that of sea-coal, which in London alone exposes our metropolis "to one of the foulest inconveniences and reproach that can possibly befall so noble and otherwise incomparable a city." Under the combined influences of "culinary fires" and factories, the London of Evelyn's day, if we are to believe his picturesque description, was scarcely less begrimed than the London of the present; "for where," continuing his picture, for the truth of which any Londoner can fully vouch, "in all other places the air is most serene and pure, it is here eclipsed with such a cloud of sulphur as the sun itself which gives day to all the world besides, is hardly able to penetrate, and impart its heat, and the weary traveller at many miles' distance sooner smells than sees the City to which he repairs." In every point the picture tallies, the "scoty crust" forming on everything, "spoiling the movables, tarnishes the plate gildings and furniture, and corroding the very iron bars or hardest stones with those piercing and acrimonious spirits which accompany its sulphur, and executing more in one year than, exposed to the pure air of the country, it could effect in some hundreds. It is this horrid smoke which obscures our churches and makes our palaces look old, which fouls our clothes, and corrupts the water, which scatters and strews about those black and smutty atoms upon all things which it comes, insinuating itself into the most precious repositories, diffuses a yellowness upon our choicest pictures and hangings, suffering nothing in our gardens to bud," and, on this point, Evelyn mentions a characteristic incident, which we quote in the author's own quaint words,—"Not, therefore, to be forgotten is that, which was by many observed, that in the year when Newcastle was besieged (1644) and blocked up in our late war, so, as through the great dearth and scarcity of coals, those famous works, many of them either left off or spent but few coals in comparison to what they now use, divers gardens and orchards, planted even in the very heart of London (as, in particular, my Lord Marquis of Hertford, in the Strand, and my Lord Bridgewater, and some

* Though the charter of the Royal Society is only of 1663, and Evelyn's "Fumifugium" was published two years previously, it is well known that the Royal Society was in existence many years before the granting of the charter. See Evelyn's "Diary."

others about Barbican), were observed to bear such plentiful and infinite quantity of fruits as they never produced the like either before or since, to their great astonishment, but it was by the owner rightly imputed to the penury of coals, and the little smoke which they took notice to infest them that year," and Evelyn draws a very natural inference from this fact that the air which is impure for the plants must be impure for human beings. Even if it be true that human nature can accustom itself to even unhealthy conditions, it is none the less true that this is only done at a certain sacrifice, and many can fully bear out Evelyn's statement that an absence from the metropolis is singularly conducive to increased appetite and spirits. What, he adds, "if there appear to be an arsenical vapour as well as sulphur breathing sometimes from this intemperate use of sea-cole in great cities?" And here our author falls sadly upon "Newcastle Cole" and the injurious effects of the arsenical vapours of all subterranean fuel. As for the impurities connected with the use of coal, these appear to have been long known; and Evelyn refers to the "Bleachers about Haarlem prohibiting by law the use of coal for miles round, and the dyers and weavers of damask and other precious silks at Florence the least ingress of smoke to the looms." As for the view of the disinfecting value of smoke,—one which even to this day has its upholders,—our author very pertinently asks if the London smoke protected the metropolis from the attacks of the plague." "I do affirm," remarks Evelyn in another place, "that it is not the dust and ordure which is daily cast out of the houses, much less what is brought in by the feet of men and horses, or the want of more frequent and better conveyances, which renders the streets of London dirty even to a proverb, but chiefly this continual smoke which ascends in the day-time, and is by the descending dew and cold precipitated again at night," a fact which he notices from the dirt that may be seen on the linen, "the stickiness of the water,"—one can scarcely imagine 200 years have passed since this natural complaint,—"and the prodigious use of almond powder and soap." This his first part he concludes with the hope that he may succeed in pointing out to all "how pernicious this smoke is to our inhabitants of London, to decrie it, and to introduce some happy expedient whereby we may to the future hope to be freed from so intolerable an inconvenience."

In the proposal to rid the metropolis of "the clouds of smoke which so universally and so fatally infest the air and would in no city of Europe be permitted where man had either respect to health or ornament," and which, by its abatement, as we should say now, would bring a new life to London, and make it a new city, Evelyn's remedies resemble many made by later reformers; if the suggestion of the removal to the east end of all factories, is no novelty, that of "charking the culinary fires,"—using, that is (we presume), charcoal in our kitchens, as Evelyn had seen in France and as is there still done,—is one which has not been put forward, but which merits attention, for the belief in the unwholesome effects of charcoal is founded solely on its mismanagement. We have often heard it stated that our London smoke is met with by ships far out in the British Channel, but it is certainly curious to hear 200 years ago, of France complaining that our sea-coal injured their vines. That this injurious effect of the smoke of coal has long been amply recognised is proved in the quotation by Evelyn of a law of James I. prohibiting, in various counties of England, the use of certain obnoxious fuels, and Evelyn brings to his support many classic examples; the Israelitish sacrifices being burnt *outside* the camp; the prohibition among the Romans to bury or burn their dead within the city walls. It may be said that we have not yet realised this simple hygienic precaution, and Evelyn, 200 years ago, we find drawing attention to a dangerous practice not yet discontinued. Every one, too, must appreciate the fervent desire of old Evelyn, that the silver channel of the Thames may be kept pure. Evelyn, we see, was an early hygienic reformer; he was warm in his views, and the appeal he makes to all "that have houses in the city, you that bring up your wives and families from their sweet habitations in the country, that educate your children here, that have offices at Court, that study the laws," applies equally well to the present day. "Health and beauty are concerned in this petition, and it will become our wise senators, and we earnestly expect it, that they would consult as well the state of the natural as the politick body of this great nation so considerable a part whereof are inhabitants of this august city, since without their mutual bearing and well-being there can nothing prosper or arrive to its desired perfection."

It is but what we might expect from the delightful and refined author of "Silva, or the Forest Trees," that one proposition for the remedy of the smoke-nuisance of London should consist in the suggestion to plant sweet-smelling shrubs and flowers in the open spaces about the City.* It is not a little amusing that as early as this we find exception taken at the "exorbitant increase of tenements, poor and nasty cottages near the City," which our author urges, should be prohibited, as disgracing and taking off from "the sweetness and amenity of the environs of London."

The remedy suggested is not of a nature, we are afraid, practical enough for the present day; but the suggestion is none the less one that merits attention. We may, to a great extent, counteract the noxious effects of smoke and impure air by the growth of greenery, and when once this fact is admitted more generally, perhaps London may be planted with trees like Paris. In the mean time our increasing number of chimneys will continue to befoul the London air, unless some steps be taken to check what is becoming yearly a greater infliction, and which, from the possibility of its prevention, or, at least, its abatement, is only the more humiliating by its presence. Agitation only is necessary to rouse public action against what is no natural evil, but a purely self-inflicted torture. This point, 200 years ago, old Evelyn saw and endeavoured to show to his contemporaries, and yet, in 1882, can we say that we are nearer the solution of the problem than was this original Fellow of the Royal Society?

THE ACQUISITION OF OPEN SPACES IN LONDON.

IT is satisfactory that there now exist some clear and definite rules for the preservation of open spaces within the area of the metropolis. The crude provision of the Metropolitan Open Spaces Act, 1877 (40 & 41 Vic., c. 35) are now supplemented by the Metropolitan Open Spaces Act, 1881 (44 & 45 Vic., c. 34), and the two combined may be said to form the code of rules which regulate the acquisition of a public open space in London. The Act of 1877 was, as we have said, comparatively a crude one, for it only enabled the Metropolitan Board of Works, by purchase on voluntary sale or by the gift of persons entitled to dispose of the ownership of an open space, to hold the same in trust for the perpetual use of the public. There was also a provision by which, where an open space was used as a place of recreation for the inhabitants of the surrounding houses, the owners or occupiers of such houses, that is of *all* the houses, might convey to the Board of Works as trustees for the public the right to enter and use such places on agreed terms. For the purpose of carrying out these objects the Board was empowered to defray any expenses caused by the fulfilment of the provisions of the Act.

So the law stood until last session, by which time it had become evident that however useful it might be as it was, yet it by no means was sufficiently wide in its operation. Every year the question of open spaces in the metropolis has been becoming more important, and therefore it was of no little moment that the law should facilitate the possession of such as exist by a public body, as perpetual "lungs" and places of recreation for the crowded inhabitants of London.

A brief review of the provisions of the Act of 1881 will show to what extent the law has been improved on this subject, and what are now its leading features.

When any open space within the metropolis is under the provisions of any private or local Act, placed under the care and management of trustees or any other representative body, they may convey it to the Metropolitan Board of Works, or to the vestry or district board of the place where it is situated, and this conveyance may be either for a nominal or a substantial sum, and extend to any term of years or limited interest in such a space. But before any such conveyance as we have mentioned can take place, two things must have been done: the trustees must have passed a resolution to effectuate the conveyance, and the owners and occupiers of the houses which front on this open space must have given their consent. It is important, however, to notice that such a resolution is valid if it is passed by a majority of two-thirds of the persons present, and the same majority of occupiers and owners is required to give an effectual consent at a meeting called for this purpose. Therefore, it is pretty obvious that if there is any substantial reason against transferring an open space, it will not be done; but if only a small section of the inhabitants are adverse to a change, they will not be able to prevent the public from having the benefit of an open space, which it may be well that they should be able to use. There are, however, two provisions which seem unnecessary. The first, that no meeting for the purpose of effectuating a transfer shall be held between the 1st of August and the 31st of January; and the second, that when a resolution for a transfer has not been carried, it shall not be put again for three years. Both spaces of time seem to be too long, though, we presume, the first is meant as a protection to those who live in West-end squares which are little likely to be acquired by the public. The provisions which we have already noticed are applicable to cases where a single person is the owner of the space, and the dwellers in the neighbourhood have the right to use it.

The remaining provisions, exclusive of what may be termed minor details, are also important, since they enable disused burial-grounds and churchyards to be vested in the Metropolitan Board of Works or other local body, "with a view to the enjoyment by the public of such churchyards, &c., in an open condition free from building," but not for the purpose of games and sports. It is also satisfactory to see that the authorities are specially empowered to "drain, lay out, turf, plant, ornament, light, seat, and improve" those churchyards of which they obtain the management. The result, we hope, of this Act will be to make the old churchyards of London no longer an eyesore, and will enable the inhabitants of a neighbourhood to enjoy the open spaces, which are now too often monopolised by half a dozen individuals. It will also prevent any chance of any open space being built over, which it may be desirable to keep as a public recreation-ground; and we may further express a hope that similar provisions will shortly become law in regard to our large provincial towns. The graveyards of Liverpool, for example, are now a blemish to that fine city.

ASHBURNHAM HOUSE.

ASHBURNHAM HOUSE, Westminster Abbey, has recently attracted a considerable amount of public attention, chiefly from the fact of its having been, through some curious legal arrangement, transferred from its original possessors, the Dean and Chapter of Westminster, into the hands of the governing board of Westminster school,—a change which is, for many reasons, to be deplored.

There seems to be evidence of a fairly reliable kind that Ashburnham House is, for the most part, the work of Inigo Jones. The whole question has been ably argued in a letter by Mr. Alfred Marks, which we published last week (p. 27, *ante*). Portions of the building certainly exhibit some of this architect's peculiarities in a very marked manner, notably, the staircase of which we give an illustration.

The house is situated upon a plot of ground between the south cloister walk of the Abbey and the yard of Westminster School, having entrances from both. As the principal entrance, however, is from the school, or south side, we shall speak of that as the *front*, and call the other the *garden side*, as it looks over an old-fashioned terrace-garden, terminated by the high wall of the ancient refectory of the Abbey.

Ashburnham House consists of a centre pavilion and two wings, constructed of red brick, all very plain, and depending for its ornament upon the cut brick architraves of the doorway and a simple band and cornice; the proportions, however, are decidedly pleasing, and before the centre pavilion was raised a story it must have

* The names of those he gives as likely to prosper in the London atmosphere are—jessamine, syringa, Gueldre roses, musc, Spanish heath, bay, juniper, lignum vitæ, and lavender, "but, above all, rosemary," vines and hops, lime-trees; in the beds,—pinks, carnations, cloves, gilly-flowers, and primroses, auriculas, violets, cowslips, lilies, narcissus; thyme, mint, &c.; other plots reserved for beans, peas, not cabbage, as in rotting they give off a bad smell, "but sweet-smelling and useful plants."

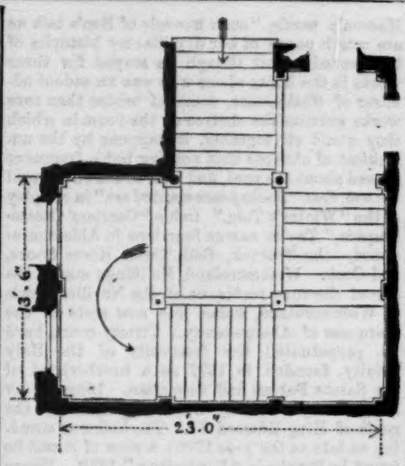
been a very characteristic example of the plainer style of domestic architecture of the seventeenth century.

All the principal apartments appear to have been originally upon the first floor, the ground-floor being used for kitchens and other offices. The most remarkable portion of the building is the main staircase leading from the entrance-hall to the first floor, the arrangement of which can be better understood by looking at the plan and engraving that we give than by any amount of description. The whole of the architectural detail is of wood, except the ceiling, and the joiner's work rather partakes of the Mediæval manner of construction than the modern: thus wooden pegs are used where we should now use screws, and the work is, in general, cut more out of the solid than it would have been if executed at a later date. The great profusion of panelling and the variety of its treatment and forms seem also to bespeak a kind of recollection of late Gothic work, though the detail itself is quite that of the Renaissance. One feature also which is, we think, peculiar to Inigo Jones is here to be noticed: we refer to the marked entasis given to the Ionic pilasters. At Whitehall the pilasters have the entasis, though the best authorities on Classic architecture seem to be opposed to this treatment. It will also be noticed that no frieze or cornice intervenes between the great cavetto of the ceiling and the architrave of the colonnade, the cavetto itself serving as a part of the entablature. The most interesting portion of the design is the oval skylight or lantern, which is very elegantly treated, and serves to give an air of great dignity and importance to this moderately-sized staircase (it is in reality only 23 ft. square from wall to wall). The small landing at the top of the staircase leads, by means of two doorways, to the old dining-room, which is lighted from the garden side of the house, and contains a most charming recess or alcove for the sideboard, and to the ante-room or vestibule of the great drawing-room; the two latter are richly panelled, the architraves of the doors adorned with a good deal of carving in wood, and the ceilings are elaborate examples of plaster-work divided into large square and oval compartments. The extremely intelligent clerk of works of Westminster Abbey, Mr. Wright, informed us that the large oval compartment in the centre of the drawing-room had formerly a dome over it, which was probably destroyed when the top story of the house was added. There seems to be a great deal in favour of this view, as there can be no doubt that the timber-work over the ceiling at this point has been altered, and also the inner rim of the mouldings which surrounds the panels, is here wanting. Now, it does not seem likely that this feature would have been omitted in the most important panel of the whole ceiling, and if it had been removed at any time we should be sure to find some mark upon the flat plaster-work. The mantelpieces are good in design, though rather plainer than might be expected in such a house. There is nothing much of interest in the top story, except the little gallery surrounding the oval lantern of the staircase. The windows which light it retain the original wooden mullions and glazing, and the tile roof is very quaintly treated. These are additional evidences of the early date of the staircase, and are quite what one would expect to find in a house erected at the end of the reign of Charles I.

The ground-floor contains a large entrance-hall or vestibule; a kitchen, which retains an old arch that evidently belonged to the monastic buildings; the apartments upon this floor have, however, been refitted within the present century, and are uninteresting. We must not, however, omit to notice a fine old Perpendicular doorway, with its original doors of oak (unfortunately in a very bad condition), leading into a kind of cellar.

The little courtyard in front of the house is paved with stones of various colours, arranged in patterns, and in the garden in the rear of the house is a little summer-house or alcove, which is also considered to be the work of Inigo Jones.* It bears a certain kind of resemblance to parts of York Gate, which is supposed to be the work of the same architect. The columns are constructed of brick covered with plaster, and although there is little to be said for such a mode of construction, it is not improbable that this is the earliest example of it at present existing in England.

* See Mr. Marks's letter (p. 27, *ante*).



As we have said before, we consider it a matter of regret that this building should have been allowed to pass out of the hands of the Dean and Chapter into those of the school authorities. We can scarcely credit a report which has reached us that the present possessors of this interesting mansion seriously contemplate pulling it down at no very distant date, and are convinced that public opinion would strongly condemn such an act. But apart from this, there are other considerations of a still more serious kind, which lead us to consider it in every way undesirable that Westminster School should make any further encroachments upon the precincts of the Abbey. By a very wise and judicious arrangement, the great boarding-schools of the metropolis are one by one being removed into the country or suburbs, and in no instance could the reasons for such a removal be advocated with greater force than in the case of Westminster; a more unsuitable site as a dwelling-place for a large number of youths could be scarcely conceived, surrounded as it is on all sides by the mouldering remains of humanity, which have been accumulating for more than a thousand years. Speaking from a sanitary point of view, what is the Abbey? A vast charnel-house. The cloisters are a crowded burial-ground; the very playground is a disused cemetery; while within a stone's throw is the enormous churchyard of St. Margaret's. An immense hospital overlooks on one side, and a series of crowded alleys and narrow streets occupying the other (a trap for London fogs and stagnant air), render this one of the least healthy situations in the whole of London, and we cannot help feeling convinced that before many years are over, Westminster School must either return to the original intentions of its founders, and become a day-school pure and simple, without any boarding-houses attached to it, or be removed bodily into the country or suburbs. It is absurd, in view of those sanitary reforms elsewhere which have been forced by the growth and conditions of the metropolis, to allow our great boarding-schools to remain in the midst of over-populated and unsuitable districts.

ROUND ABOUT ALDERSGATE.

"ÆLDERSGATE, or Aldersgate, so-called not of Aldrich or of Elders,—that is to say, ancient men builders thereof;* not of eldarne trees growing there more abundantly than in other places, as some have fabled; but for ye very antiquity of ye gate itself, as being one of ye first four gates of ye city, and serving for ye western parts as Aldgate for ye east; which two gates are for difference's sake, called ye one Ealdegate and ye other Aldersgate." The Ealdegate, or Aldgate, of which Stow thus speaks, was built in the later Roman wall of London, as a way into the city from the east, upon the construction of the bridge at Stratford over the river Lea. The claims of this and of Aldersgate to antiquity are rivalled by Bishopsgate and Newgate. The foundation of Bishopsgate is ascribed to St. Erkenwald,† in the year 675 A.D. Newgate was built in the city wall during the reign of Valentinian, emperor of the West (364-375 A.D.) for an entrance by the new road leading from Tyburn,—along what are now Oxford-street, High-street and Broad-street, St. Giles's, Holborn, Newgate-street, and Watling-street,—to the new bridge (London Bridge) across the Thames. The old road to the river turned southwards at the Marble Arch, going down Park-lane, and so, keeping to the west of the river Eye, or Aye, along the marshes of Thorney Island to the ford between Millbank and Westminster. At this time London was known by the complimentary title of *Augusta*; shortly afterwards the Roman forces were gradually withdrawn from Britain to resist perils that threatened nearer home.

* The name appears as Aldrichgate in the London Chronicle, *temp.* Edward IV.

† Fourth Bishop of London.

The entry of King James I. from Scotland into London, through Aldersgate, was commemorated in the New Gate, which, in the year 1617, was built close to the site of the former, between Little Britain and Bull and Mouth (Boulogne Mouth) street. This new gate was designed by Gerard Christmas, who, Vertue alleges, was architect of Northampton House, Charing-cross, built for Henry Howard, Earl of Northampton, on the ruins of the Hospital of St. Mary, a cell to the Priory of Rounceval, Navarre, and founded *temp.* Henry III. The house was subsequently called Northumberland House, on the marriage of a daughter of the Earl of Northumberland with the Earl of Suffolk, to whom the house was left by his kinsman, Henry Howard.

Christmas's Gate presented the customary features of a central archway flanked by two square projecting towers. Over the roadway, facing to the north, up Aldersgate-street, which began here, was set up an equestrian figure, in high relief, of King James I. At the sides were inscribed two appropriate verses of Scripture:—"And Samuel said unto all Israel, behold, I have hearkened unto your voice in all that ye said unto me, and have made a king over you" (1 Sam. xii. 1); and "Then shall there enter into the gates of this city kings and princes sitting upon the throne of David, riding in chariots and on horses, they, and their princes, the men of Judah, and the inhabitants of Jerusalem; and this city shall remain for ever" (Jeremiah xvii. 25). On the inner front appeared the king's effigy seated in a chair of state. John Day, the printer, had a lodging in the gate-house (just as Cave, many generations after him, lived over St. John's Gate, Clerkenwell). Here, in the year 1594, he printed his folio Bible, dedicated to King Edward VI.; with Latimer's "Sermons," the "Works of Roger Ascham," and Foxe's "Booke of Martyres." The New Gate was once adorned with the heads and limbs of the regicides. Damaged by the Great Fire of 1666 it was sold by auction on the 22nd day of April, 1761, for 91*l.*, and was shortly afterwards pulled down.

Stow enumerated six churches of his time in Aldersgate Ward. Four of these that had been burnt in the fire were not rebuilt. These were St. John Zachary, an ancient foundation in Maiden-lane, Wood-street; St. Mary, Staining; St. Olave, Silver-street; and St. Leonard, Foster-lane. Of the other two, that of St. Anne and St. Agnes was also burnt, whilst St. Botolph's escaped. St. John Zachary is now united with St. Anne and St. Agnes; St. Olave with St. Alban, Wood-street; and St. Leonard with Christchurch, Newgate-street. The church of St. Anne and St. Agnes was formerly called St. Anne-in-the-Willows, but why so, Stow says he does not know, though he conjectures it may have taken its name from the multitude of willow-trees that grew in this locality. The church was burnt down in the year 1548, and soon afterwards rebuilt. In 1680 the present edifice was built by Sir Christopher Wren, at a cost of 2,448*l.* 0*s.* 10*d.* St. Botolph's was replaced with the present church in the year 1790, at an expense of about 10,000*l.* Its churchyard was thrown open in October, 1880, as a public recreation-ground. The southern boundary forms an interesting relic of the old London wall; but it is so embedded and lost in later superstructures and additions as to be well nigh indistinguishable. This is one of the four churches at the City gates which are dedicated to the popular St. Botolph. The story runs that, travelling with his brother Atolph into Gaul, he met there two sisters of Ethelmund, king of the East Saxons, who recommended him to their brother. Ethelmund gave him a piece of land in Lincolnshire,—"a forsaken uninhabited desert, where nothing but devills and goblins were thought to dwell; but St. Botolphe, with ye virtue and sygne of ye holy crosse, freed it from ye possession of those hellish inhabitants, and by ye means and help of Ethelmund built a monastery therein." Boston (Botolph's-town) is said to mark the site of this Benedictine monastery,

where Botolph, its first abbot, died in the year 680 A.D.

In Howell's "Londinopolis," 1657, it is stated that "Ye street resembleth an Italian street more than any other in London, by reason of ye spaciousness and uniformity of ye buildings and straightness thereof, with ye convenient distance of the houses; on both sides whereof there are divers fair ones." Aldersgate-street has been greatly modernised in past years, and but twenty-four months ago was despoiled of one of its few remaining ornaments, in the shape of the Half-Moon Tavern. The destruction of so unique a specimen of Elizabethan domestic architecture is much to be deplored. Its latest occupant, on what grounds is best known to himself, had placarded it as being "Shakspeare's House." Such it never was; but it was a favourite resort of Ben Jonson and the wits of his own and succeeding generations. A fine drawing of the house is included in the Crace collection, now in the Kensington Museum. But the chiefest glory of this street (and also doomed to speedy demolition) is Thanet, more commonly known as Shaftesbury, House. This stands on the eastern side, and will readily be identified by its handsome elevation, with eight pilasters, the work of Inigo Jones. He built it for the Tuftons, Earls of Thanet, who are now represented by Richard, first Lord Hothfield. From the Tuftons it passed into the hands of Sir Anthony Ashley Cooper, bart. Sir Anthony was the great-grandson of Richard Cooper, owner of the mansion of Paulet, which he purchased in the twenty-second year of King Henry VIII., of Sir Amyas Paulet, the same Sir Amyas who built the former Middle Temple gate, as a fine to Cardinal Wolsey. Sir Anthony Cooper, born on July 22nd, 1621, was actively engaged during the civil wars. Espousing first the one cause, and then the other, he finally contributed to the restoration of the monarchy, and for this service was created Baron Ashley of Wimborne St. Giles, county Dorset, in April, 1661. The following year he was elevated to the Peerage as Earl of Shaftesbury, and in November, 1662, was declared Lord High Chancellor. To him the country is indebted for the Habeas Corpus Act, and the judges' independence of the Crown. Lord Shaftesbury's political reputation, however, is best remembered in the fine lines of Dryden:—

> "For close designs and crooked councils fit";

and the stanzas in "Hudibras," beginning,—

> "'Mong these there was a politician,
> With more heads than a beast in vision."

He married three times, but left only one surviving son, by his second wife, Frances, daughter of David Cecil, Earl of Exeter. A strong opponent of the subsequent measures of the Court, he was compelled to emigrate to Holland, dying there, of gout in the stomach, on the 22nd day of January, 1683. About twenty-five years after his death, the house reverted, in 1708, to the Tuftons. In 1720 it became an inn, in 1734 a tavern, in 1750 it was converted into the London Lying-In Hospital, and in 1848 into a dispensary. Its present aspect will be seen in my sketch (fig. 1). The town mansion of another famous member of the "Cabal,"—John Maitland, second Earl and first (and only) Duke of Lauderdale, stood in this street. Some would identify it with the fine red brick mansion near Lauderdale Buildings; others say it stood at the top of Hare-court, where, in later years, was built the well-known meeting-house,—premises now converted, by the superposition of a third and fourth floor, into a printer's establishment. At the back of this, again, may be seen a set of old-fashioned little houses, which will well repay a visit. Beyond Lauderdale House, and on the "Lauderdale Estate," was the Bell Inn, two or three doors from the Barbican, "of a pretty good resort for wagons with meal." Hence, on the 14th day of July, 1618, John Taylor, the Water Poet, started upon his "Penniless Pilgrimage" to Scotland; following, by a few days only, in the footsteps of Ben Jonson. It is a mistake to ascribe Jonson's tour solely to his desire to visit his fellow poet and fellow countryman, William Drummond. But he did go to Hawthornden; and one morning in January, 1619, Drummond, waiting under the sycamore which yet stands before the house he had himself built, saw the burly form of his guest approaching on the road leading from Lasswade. "Welcome, welcome, royal Ben," to which the latter replies, "Thank ye, thank ye, Hawthornden"; and they went in and fraternised. Drummond, in his *Noctes Cenaque*, "has preserved to us," in Professor Masson's words, "such morsels of Ben's talk as are worth pages of our dry literary histories of that period"; but though he stayed for three weeks in the house of one who was an ardent admirer of Shakspeare, some of whose then rare works were on the shelves of the room in which they would sit together, it happens by the unluckiest of chances that nothing but a fragment passed about the poet, and that to the effect, said Jonson, that "Shakspeare wanted art" in his play of the "Winter's Tale." In his "Carriers' Cosmographie," Taylor names four inns in Aldersgate-street,—the Peacock, Bell, Three Horse Shoes, and Cock. Westmoreland Buildings marks the site of the town residence of the Nevilles, Earls of Westmoreland, whose line now rests in the Marquess of Abergavenny. Trinity-court, hard by, perpetuated the fraternity of the Holy Trinity, founded in 1377 as a brotherhood of the Saints Fabian and Sebastian. Licensed by King Henry VI., they were suppressed in the reign of King Edward VI. The hall was standing as late as the year 1790: a view of it will be found in Brayley's "Londiniana," 1829. Henry Pierrepoint, Marquess of Dorchester, lived in Peterborough House, which once stood opposite to Thanet House. Converted by Cromwell into a prison, it subsequently became the town residence of the Bishops of London, their other home in St. Paul's Churchyard having been destroyed in the Fire. Here the Princess Anne found refuge when, deserting her father, King James II., in 1688, she fled hither, escorted to the house by Bishop Compton in a hackney coach. A few steps further on is a group of three or four very picturesque old houses, with square bays. Amongst others whose memory gives an exceptional interest to this district, I may mention Mary, daughter of Sir Henry Sydney, K.G., and wife of Henry Herbert, second Earl of Pembroke, to whom Sydney dedicated his "Arcadia." She died, of a green old age, at her house in Aldersgate-street, on the 25th day of September, 1621; but lives in the inscription, by Ben Jonson, on her tomb at Salisbury Cathedral,—the six lines which begin:—

> "Underneath this marble hearse,
> Lies the subject of all verse."

Also Brian Walton, bishop of Chester, editor of the Polyglot Bible, who died here in 1661; Harry Percy, the "Hotspur" of Shakspeare; and Mordaunt, Earl of Peterborough.

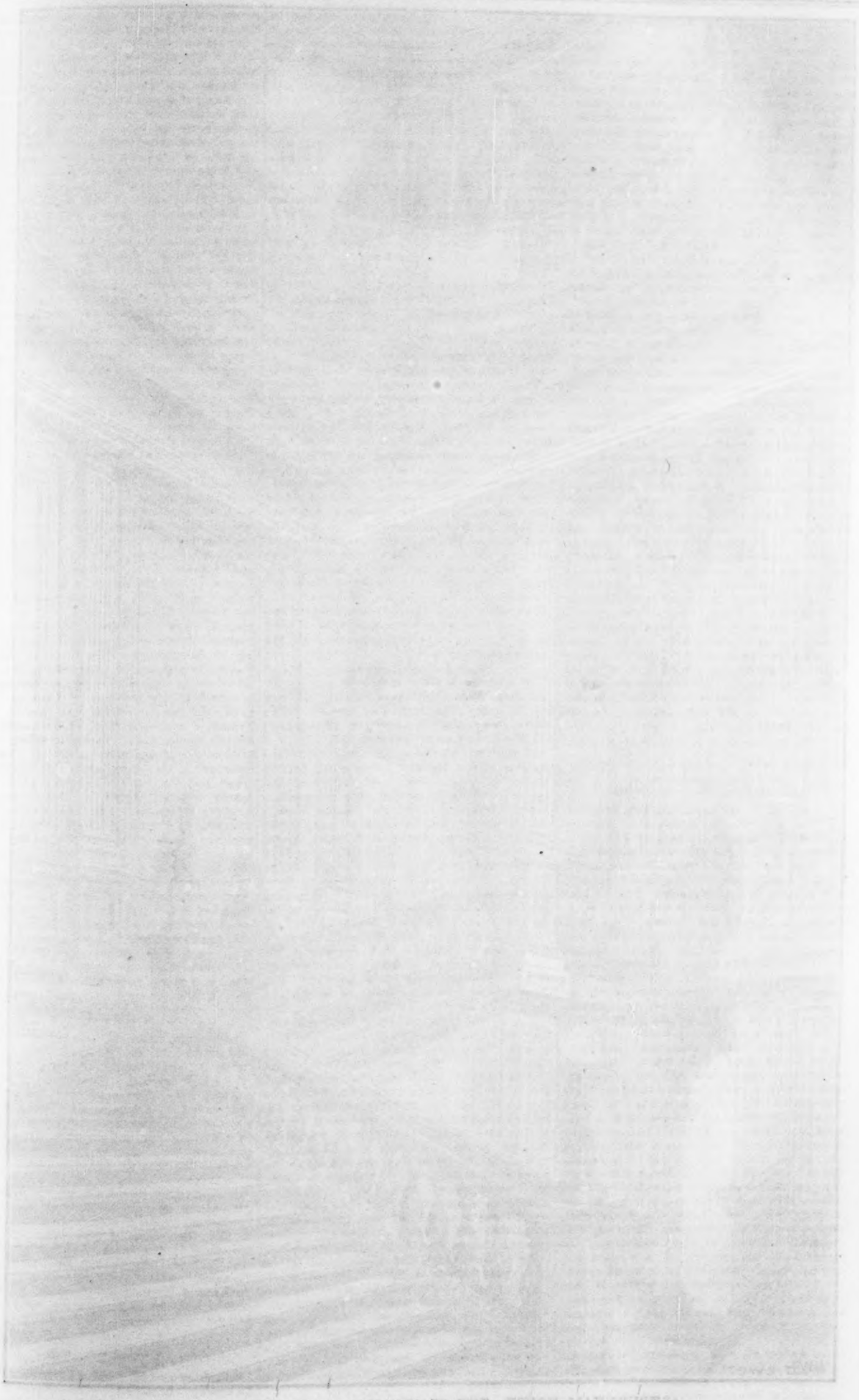
LITTLE BRITAIN takes its name from the mansion of John, Duke of Bretagne and Earl of Richmond, *temp.* Edward II. A charming description of its houses and their occupants is given in Washington Irving's "Sketch Book"; but his words must be taken as extending to the neighbouring precincts of Bartholomew Close and Cloth Fair. Little Britain formed the centre of the bookselling trade in the time of the Stuarts. Richardson the elder recounts, upon the information of Dr. Tancred Robinson, that Lord Buckhurst (whom he erroneously styles Earl of Dorset, a title to which he did not succeed until many years afterwards), hunting about here for books in the company of Mr. Fleetwood Shephard, lighted upon an epic poem, in ten books, which greatly took his fancy. The dealer begged he would speak favourably of the work, if he liked it, for the copies lay on his hands as waste paper. Lord Buckhurst sent the volume to Dryden, who returned it with answer, "This man cuts us all out, and the ancients too." The poem in question was "Paradise Lost," which just two years before this Milton, by a contract, dated the 27th day of April, 1667, had sold to Simmons, the printer, for an immediate sum of 5*l.*, with a further sum of the same amount payable upon the sale of the first thirteen hundred impressions. The receipt for the latter payment bears date the 26th day of April, 1669. The work was clearly not "waste paper" when Lord Buckhurst is said to have seen it for the first time, and Dryden was then, and had been for some while, acquainted with Milton. On these, and on other grounds, Malone conclusively rejects the authenticity of the story; just as he dismisses the apocryphal account of Sir John Denham entering the House one day with a sheet of "Paradise Lost" wet from the press, and exclaiming,—"Part of the noblest poem that ever was printed in any language or in any age." Even supposing a proof-sheet to have fallen into Denham's hands, he was then not only disordered in his understanding, but not a Member of Parliament.

From his lodgings in the house of one Russell, a tailor, at St. Bride's, a house of which the site is now occupied by the *Punch* office in Fleet-street, and whither he had conducted his young royalist wife, Mary Powell, Milton removed to Aldersgate-street. In his "Life of Milton," 1694, Philips says:—"He made no long stay in St. Bride's Churchyard; necessity of having a place to dispose his books in, and other goods fit for the furnishing of a good handsome house, hastening him to take one; and accordingly a pretty garden-house he took in Aldersgate-street, at the end of an entry, and therefore the fitter for his turn, by the reason of the privacy, beside that there are few streets in London more free from noise than that." There were many of these "garden-houses," that is to say, houses situated in gardens, upon the then outskirts of the City, especially in the northern suburbs. The term is a technical one, and frequently occurs in Wood's "Athen." and "Fast. Oxon." Milton's house in Jewin-street, a turning out of Aldersgate-street, to which, in the year 1661, he subsequently removed (after a brief sojourn in Holborn, near Red Lion-fields), was also a garden-house, as were, indeed, most of his dwellings after his first marriage and settlement in London. The corner-house of my sketch (fig. 2) is said, but on no very trustworthy authority, to be the one in Cloth Fair, where he lay concealed at the Restoration, until his pardon was obtained; though, as Dr. Johnson observes, he does not seem to have been very diligently pursued. That house adjoins the now churchyard of St. Bartholomew's the Great. At the outbreak of the Plague, in the year 1665, his third wife, Elizabeth Minshul, having died in the previous year, Milton left his house, in Jewin-street, and went to the cottage provided for him at Chalfont St. Giles, by Ellwood, the Quaker, who, on the 26th day of August, 1662, had been seized whilst preaching at the Bull and Mouth Inn, and thrown into Newgate. Returning to London in 1666, Milton took a house in Artillery-walk, Bunhill-fields, and there he died on the 8th day of November, 1674. "I cannot but remark," says Dr. Johnson, "a kind of respect, perhaps unconsciously, paid to this great man by his biographers: every house in which he resided is historically mentioned as if it were an injury to neglect naming any place that he honoured by his presence." These no longer exist; the last to remain was that in Petty France, Westminster (No. 19, York-street), inscribed by Bentham, "Sacred to Milton, Prince of Poets," and inhabited by Hazlitt. This was destroyed a few years ago. The Lacedæmonians, and the hero of Macedon after them, spared Pindar's house in Thebes; but the Apollyon of modern improvement, as mighty a conqueror as Alexander, though without his magnanimity, leaves us no one of the many homes whereof one could say, "Here lived Milton!"

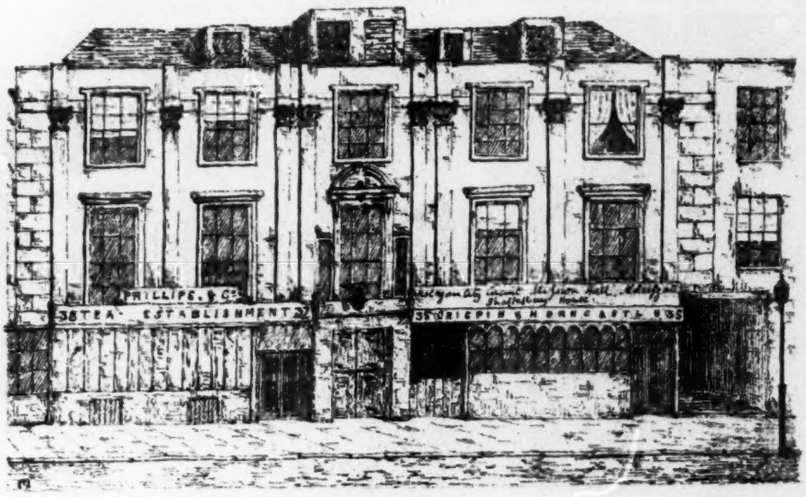
CLOTH FAIR, a narrow street with many curious courts and covered passages, stands to the north of Bartholomew-close. It is so named as being associated with the resort of the clothiers of England and the drapers of London, together with the French and Flemish merchants, to the churchyard of the Priory of St. Bartholomew the Great, when the time-honoured fair was celebrated every Bartholomew-tide. Here may still be found many characteristic survivals of Tudor London. One of these is shown in my view (fig. 3), of the "Stingo" public house. Bartholomew Fair was established in Smithfield, or Smoothfield, by Rahere, jester to King Henry I., and founder of the neighbouring priory and hospital. Stow says he was "a pleasant witted gentleman, and therefore in his time called the king's minstrel." But that he was something more than this is amply testified by a MS. (too long for quotation here) written soon after his death by one of the resident monks. The writing is in the Cottonian MS. "Vespasian," B. ix. In the year 1544, King Henry VIII., in consideration of a sum of 1,064*l.* 11*s.* 3*d.*, granted the property of the dissolved priory to Sir Richard Rich. The net income of the priory at the dissolution of the year 1539 was, according to Dugdale's *Vetusta Monumenta*, 693*l.* 0*s.* 10½*d.* Sir Richard Rich, whom Queen Elizabeth created Lord Rich, was progenitor of the Earls of Holland and Warwick, a line that expired with the decease, in the year 1759, of Edward Henry, seventh Earl.

W. E. MILLIKEN, B.A.

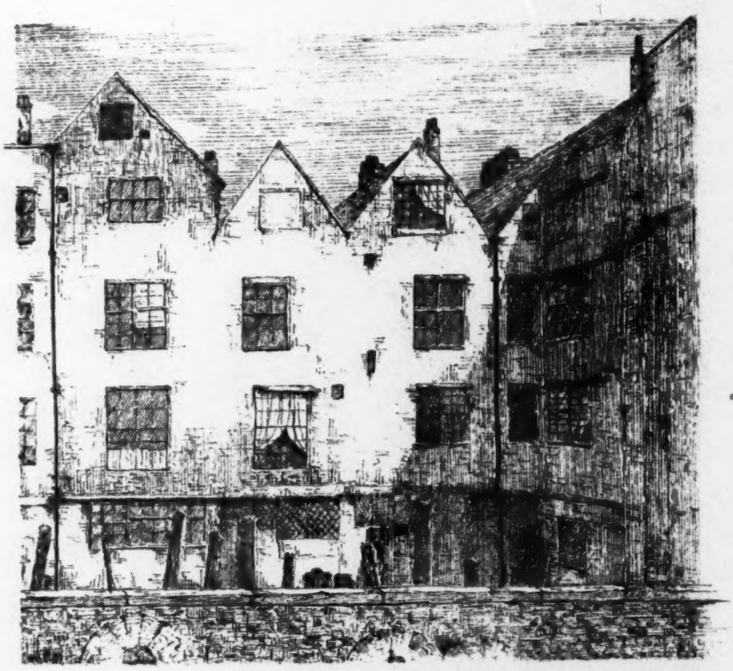
Finchley and Muswell-hill Coffee Tavern Company, Limited.—The competition has been decided in favour of Mr. J. Treadway Hanson. It was a limited competition, to which five architects were invited.



ASHBURNHAM HOUSE: THE STAIRCASE.—*Attributed to Inigo Jones.* [See p. 38, *ante*.



1. Shaftesbury House.



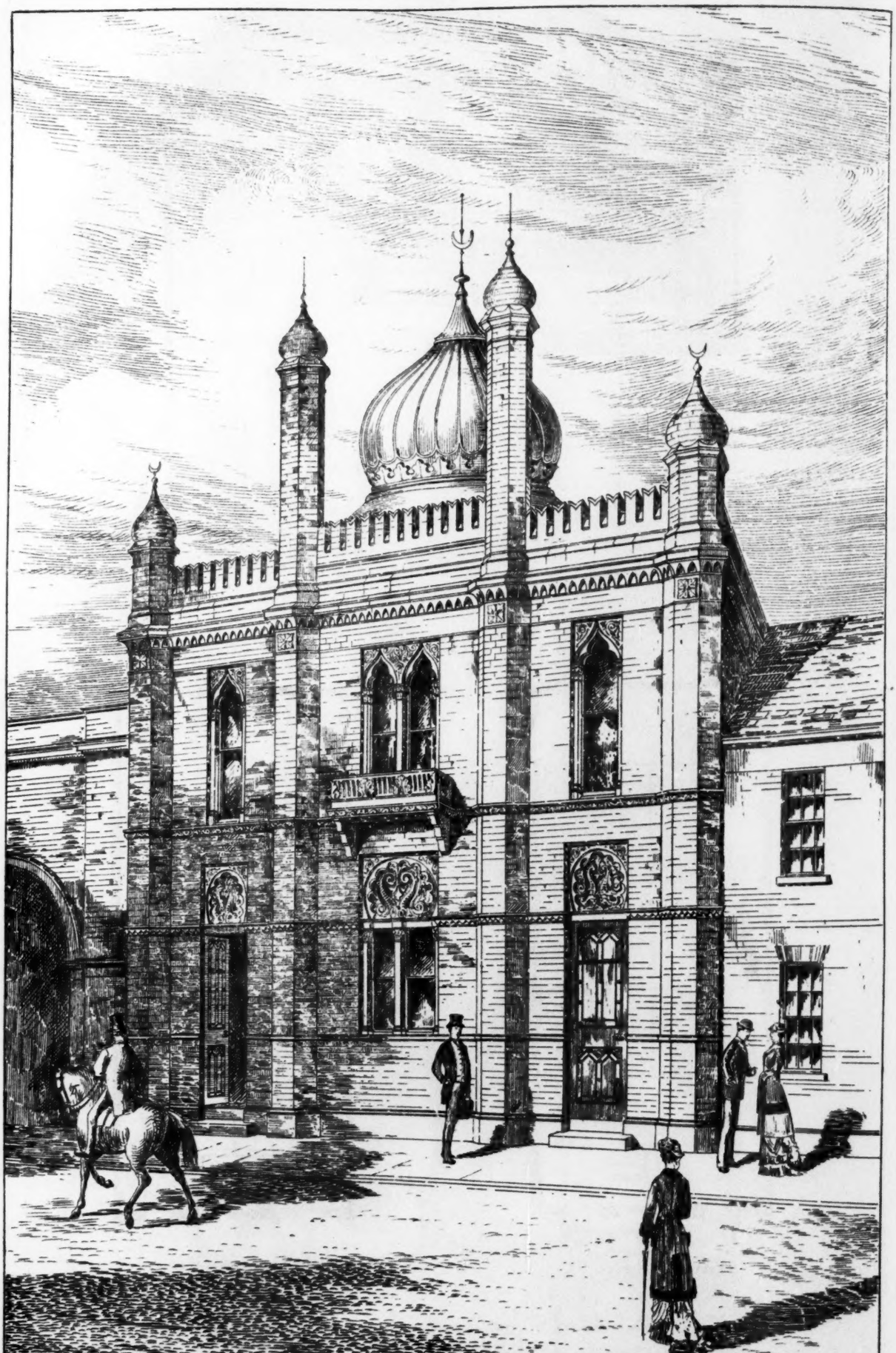
2. Houses in Cloth Fair, at West End of St. Bartholomew's the Great.

3. The "Stingo," Cloth Fair.

Whiteman & Bass, *Photo-Litho* 236, High Holborn.

Wyman & Sons, Printers, G^t Queen St.

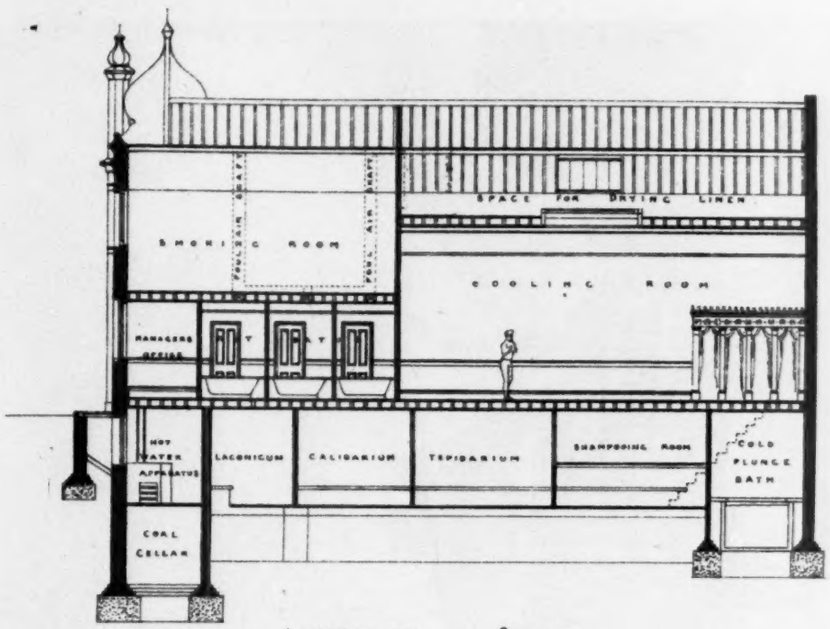
ROUND ABOUT ALDERSGATE.



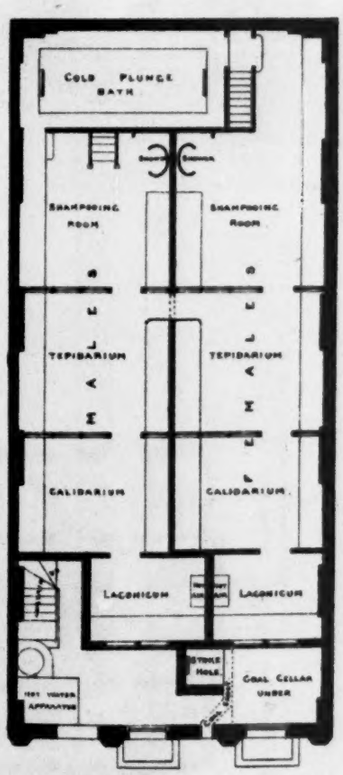
DALSTON JUNCTION TURKISH BATHS. J. HATCHARD SMITH. ARCHT.

Photo-Lith^d by C. F. Kell, Castle St Holborn, E.C.

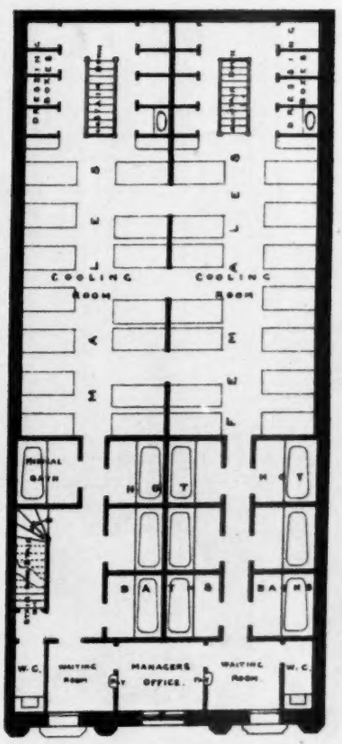
Wyman & Sons, Printers, Gt Queen St.



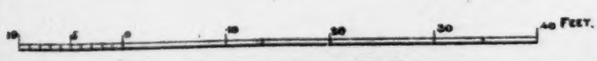
LONGITUDINAL SECTION.



BASEMENT PLAN



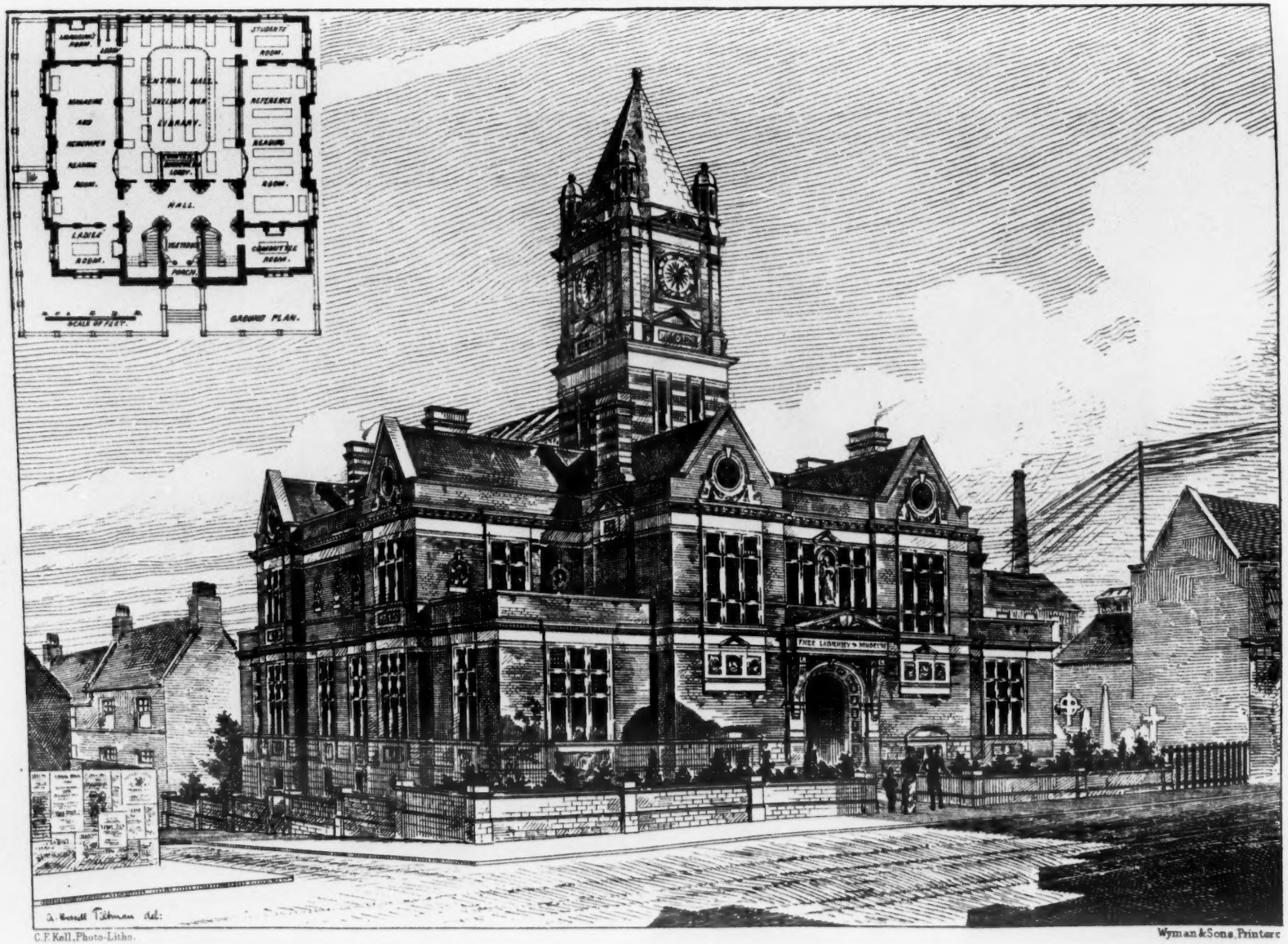
GROUND PLAN.



DALSTON JUNCTION TURKISH BATHS

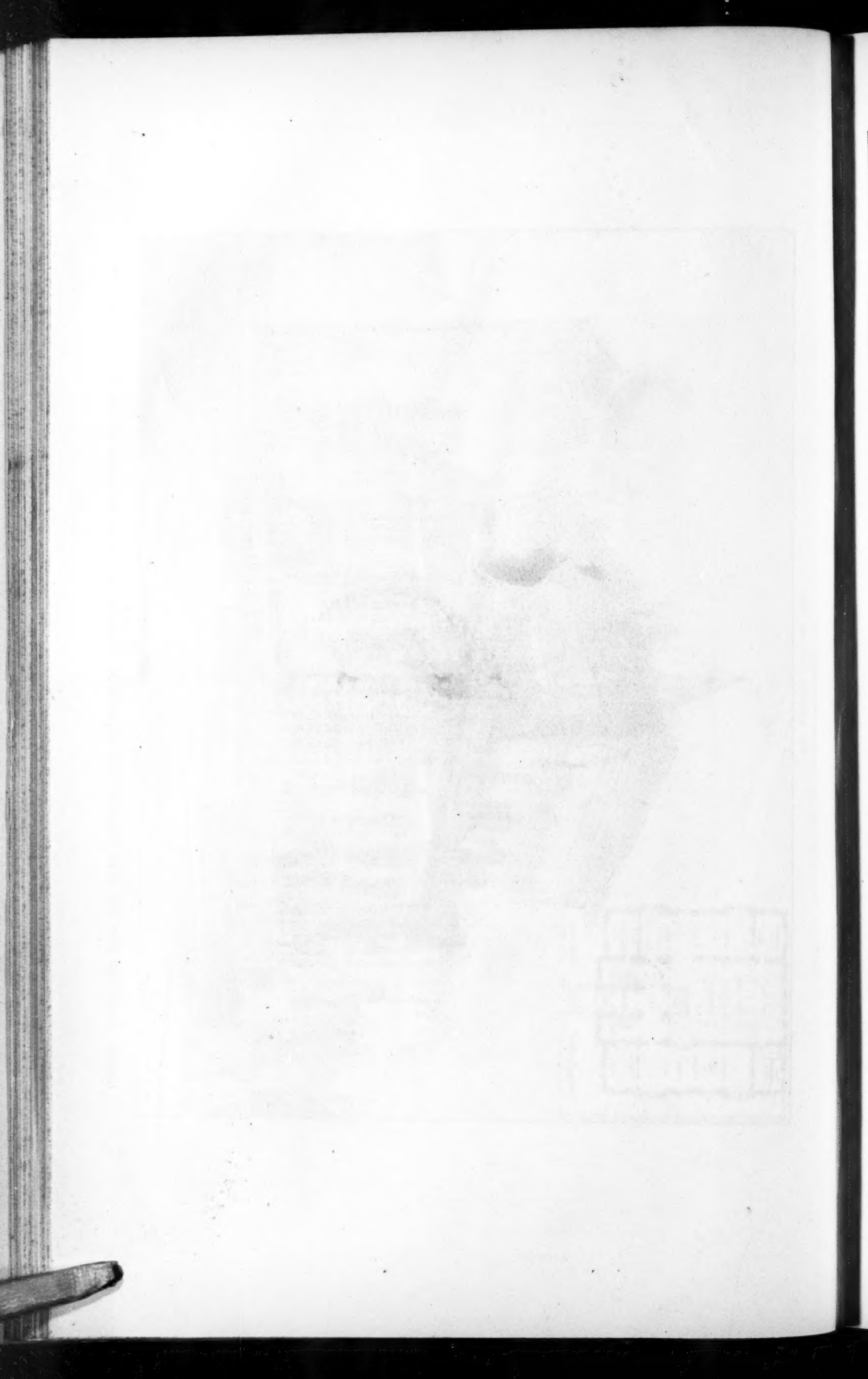
Photo-Lith^d by C. F. Kell, Castle St Holborn, E.C.

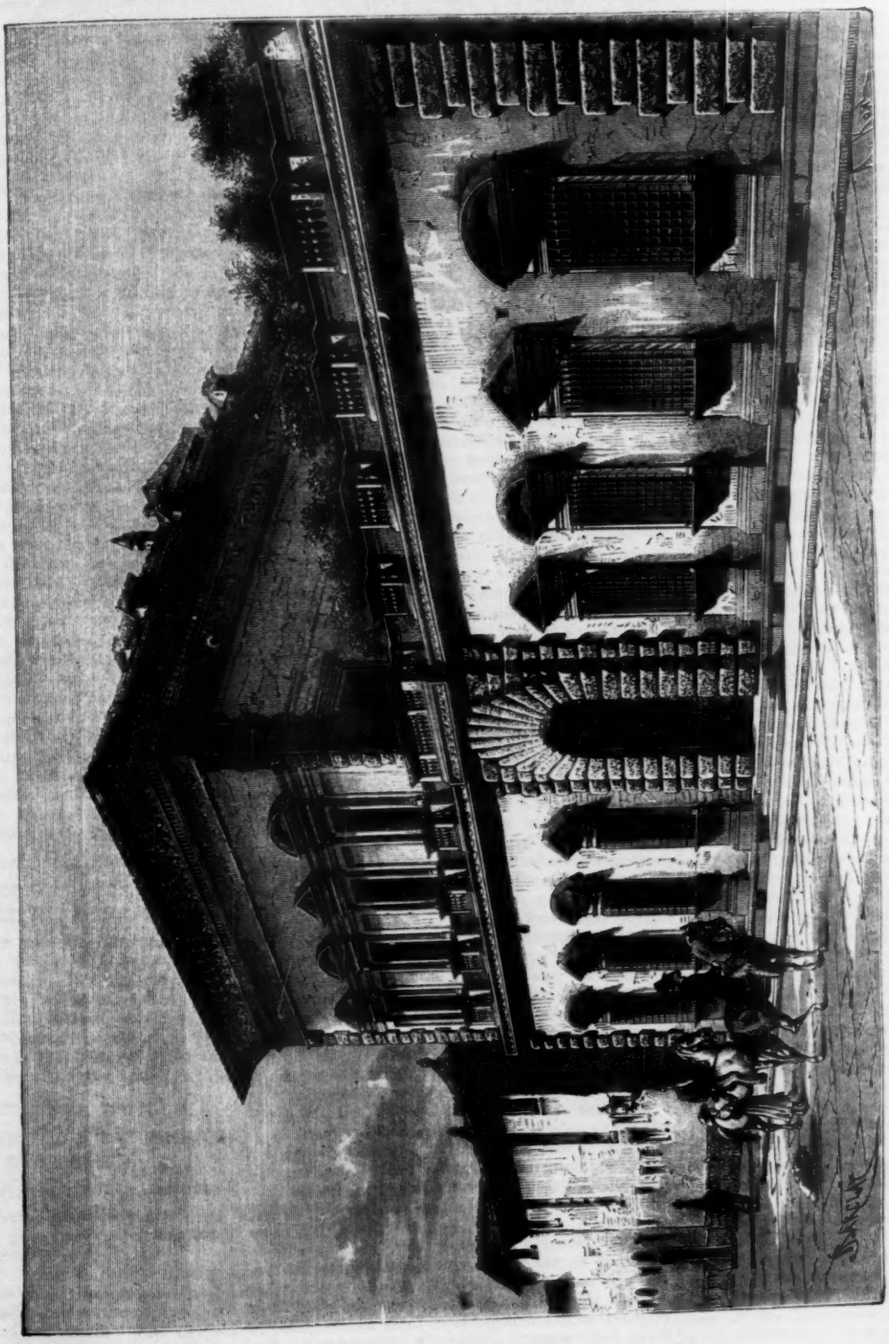
Wyman & Sons, Printers, G^t Queen St^t



C.F.Kell, Photo-Litho. Wyman & Sons, Printers

DESIGN SUBMITTED FOR THE FREE LIBRARY AND MUSEUM AT OLDHAM: BY MR. A. H. TILTMAN AND MR. H. SHAW, ARCHITECTS.





THE PANDOLFINI PALACE, FLORENCE.—DESIGNED BY RAFFAELLE.

[See p. 35 *ante*.

THE DALSTON JUNCTION TURKISH BATHS.

We publish this week the plans, sections, and front elevation of the above baths, the works at which are nearly completed. It is hoped that the drawings will prove sufficiently explanatory; therefore it will be only necessary to describe the general features.

On entering the vestibule, which is lined with marble tesseræ, the bather passes through to the large cooling-room, 32 ft. by 32 ft. by 16 ft. high, lighted by two ceiling-lights. The room is divided by a partition having openings in it, which can be closed by movable doors, in order to allow one side of the building being used for private Turkish baths or for ladies three days a week. The bather undresses in one of the small chambers which he will find on either side, and then descends a short flight of stairs to the first hot room, which is heated to about 100°, a temperature which the most delicate person will regard as simply delightful when the body is not hampered with clothing. In the next room, called the "Tepidarium," the temperature is higher (about 120°), and so on through the other rooms till a temperature of 230° is reached. The bather can recline either on the settees, or on the marble slabs which surround the various rooms. When he has been in the hot rooms for about half an hour,—or, in fact, whenever he wishes it,—he passes into the shampooing-room, where, lying on a marble slab, the flesh is carefully rubbed and then washed with a fibre-brush, and he is at once passed on to the shower-bath, which is regulated to any temperature; or, if preferred, to the cold plunge-bath. At the further end of this he is received by an attendant, who conducts him to a couch in the cooling-room. The bather can either stay there and have refreshments, or ascend to the smoking-room, which is situated on the mezzanine floor.

The baths are supplied with hot water from two tanks, one for each side. The boiler and hot-air apparatus are in the basement.

The building is faced with red Suffolk bricks: the arches are of yellow Malms; the cornices, caps, cupola, &c., are of cement.

The decoration of the cooling-rooms will be left till the spring, in order that the plastering may get perfectly dry. The hot baths are lined with blue tiles, and the hot rooms have painted dados, and the walls above are coloured.

The works have been carried out by Mr. J. Holland, builder, of Poplar, and the engineer's work is by Messrs. Tylor & Sons, under the superintendance of Mr. J. Hatchard Smith, architect, of Moorgate Station-buildings, E.C.

A DESIGN FOR FREE LIBRARY AND MUSEUM, OLDHAM.

The view and plan we have given illustrate the design for proposed Museum and Free Library, submitted by Mr. A. Hessell Tiltman, No. 7, John-street, Bedford-row, and Mr. Henry Shaw, 52, New Broad-street, architects, jointly. The materials proposed to be used were red bricks, with terra-cotta dressings, and the estimated cost of the work was 8,800*l*.

REPORT OF THE LIGHTNING-ROD CONFERENCE.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

At the ordinary business meeting of this Institute, held (open only to members) on Monday evening last,

The Chairman (Prof. T. Hayter Lewis, Vice-President), after other business, said,—I have to bring to your notice the Report of the Lightning-rod Conference. The subject of injury to persons and property by lightning has forced itself upon the attention of scientific men for some time, more especially in France. It was forced upon Frenchmen by the extraordinary number of accidents. The returns there have been taken for nineteen years, and more accurately than we do, because they take the accidents which are not fatal as well as those that are, and in these nineteen years no fewer than 6,714 persons were struck by lightning, and 2,238 killed. We cannot wonder, then, that the subject has attracted great attention. The subject was taken up here by the Meteorological Society two years back, and they sent out invitations to different societies, and, amongst others, to our own, asking that delegates should be sent to a Conference to be held, which was to go thoroughly into the matter. Six societies responded and sent delegates. The Meteorological Society sent Mr. Brooke, who unfortunately died very soon after he was nominated. He was elected chairman, but occupied that position only a short time. Mr. Dymond, as a vice-president of the Meteorological Society, attended nearly every meeting, and Mr. Symons, who was its president. The Society of Telegraph Engineers sent Mr. Latimer Clark and Mr. Preece, the Electrician to the Post Office, both gentleman having likewise been its presidents; the Physical Society sent Professor Adams, a colleague of Professor Kerr at King's College, and Professor Carey Foster, a colleague of my own at University College. In addition to these, there were Professor Ayrton and Professor Hughes, both first-rate authorities in electrical matters; and lastly, you did us the honour of sending Mr. Whichcord and myself to represent you. For secretary we had Mr. Symons, who brought the whole chaos of materials into order, classified them properly, and at last drew up a skeleton report which was adopted pretty nearly as he suggested. The first thing we did was to send round circulars to the different manufacturers to know what their practice had been. The Institute sent a circular to its members, asking them to send in particulars of any accidents known to them occasioned by lightning, and stating the circumstances in tabular form. We had thirty-six replies, which form part of the Appendix. Then particulars of other accidents of various kinds for a number of years were collected by Mr. Symons, and we had a very good basis of facts to start upon. As a large amount of information was scattered in different reports from scientific societies,—more especially in reports made to the Academy of Sciences in Paris,—these reports were analysed and abstracted. Then we had likewise the opinion of foreign authorities as to the best mode of protecting buildings. Finally we had some reports that were made, giving the information at Paris up to the present time according to the best authorities. A couple of pages have been added, giving information to architects which will form the basis of specification for any building in which you want conductors fitted up in the best possible manner,—in fact, giving a regular specification from which anyone may draw out his orders so that you may not be at the mercy of contractors. More than that, there was a paper drawn up, giving directions for personal safety, by Professor Carey Foster, and another drawn up by another member of the Commission, showing how, in the ordinary construction of a house, and using the ordinary material without any special apparatus, you could use the gutters, the water-pipes, &c., so as to produce a certain amount of protection, though not perfect protection. As far as Mr. Whichcord and myself went, our knowledge of electricity was not sufficient to enable us to take a very leading part in the matter, but anything we said was listened to with great attention and carefully considered, and we were able to point out work which would not have come under the notice of a person not thoroughly acquainted with building construction. The report has been signed by the whole of the members. I am told that it is looked upon as a very valuable contribution indeed to electrical science. As far as we are concerned personally as architects, I think we are very much indebted to the members of the Conference for the extreme care and attention they have bestowed.

Professor Kerr.—I have the pleasure to move, "That this Institute acknowledge with its best thanks the great success of the Committee's labours and the value of their Report." I have had the satisfaction of looking through the volume, and I must say that a more elaborate and exhaustive discussion of the subject could scarcely be supposed possible. Our distinguished friend, Mr. Symons, will tell us more about it presently; but to me, as being not an electrician, but only an architect, it seems to be very successful indeed. Gentlemen may perhaps wish to know in half a dozen words what is the conclusion arrived at with regard to the effect of a lightning-rod applied to a building. It is this,—that by carrying down from the summit of a lightning-rod a line at an angle of 45 degrees with the horizon, and causing that line to revolve round the vertical axis so as to form an imaginary cone, the point of the lightning rod which is the apex of that cone is said to protect all that lies within the cone. Why that should be so I am obliged to say I am totally at a loss to see. I should like if Mr. Symons would give us some idea of the reason. It seems to me that the imaginary cone ought to be turned upside down and made to proceed upwards from the point of the lightning-rod, because then such a cone, or, for instance, the intersection of several of such cones proceeding from several such points, would seem to direct one's attention to the attraction of the electric spark from the upper air (as the region from which comes the influence against which the building is to be protected); whereas, I cannot see how a cone proceeding downwards from the point should have any reason for protecting all that is within its circuit. That is the only point which attracted my notice as requiring explanation. The rules which are given in the volume for the mechanical part of the disposition, arrangement, and construction of lightning-conductors are very elaborately discussed, and no architect can fail to inform himself from that volume of all that he really requires to know. I, therefore, have very great pleasure in moving the resolution which I have the honour to lay on the table.

Mr. John Honeyman, of Glasgow, said,—I have great pleasure in rising to second the motion. I think that our chairman has given a very modest sketch of the united labours of the Conference in preparing this admirable report. It is impossible to look through it without being struck very forcibly by the tremendous amount of labour and time which must have been expended in its preparation. We, I am sure, are deeply indebted to the Conference for the result of their labours. I notice, amongst other things, that the report itself is a model of conciseness and comprehensiveness. Indeed, the volume may be considered a compendious handbook, not only for direction in the construction of lightning-conductors, but for any amount of research in regard to the scientific questions involved. There is still room left to the architect, undoubtedly, after all has been said and done, for the exercise of his judgment to a large extent, and of his taste in the application of these conductors; but the great point gained is that we absolutely know what is necessary, and on the very highest authority. I have no doubt that this volume will be of immense interest and use, not only in Great Britain, but throughout the world, because, of course, in a matter of this sort, what is good for us is good for any one anywhere, and this, I am sure, will be the highest reward the members of the Conference can have for their labours. One result of the perusal of this book has been to make me somewhat covetous of something more being done in the same direction. There are, for example, such questions as dry-rot, decay in stone, &c., where the combined conference of distinguished scientific men would be of immense advantage, and it would be a cause for our additional thankfulness to the present Conference if it should lead to the Institute inaugurating some such investigations.

Mr. G. J. Symons, F.R.S. (President of the Meteorological Society).—I feel some hesitation in rising, because I know very well the services that have been rendered by those members of your own body whom you selected to represent you, and that thanks are due rather to them than to myself. Mr. Honeyman, in his remarks, called attention to the quiet and modest way in which Professor Lewis spoke of the work of the committee, but even he did not know, as I do, how enormously we are indebted to Professor Lewis himself for the assistance he has given. If Mr. Honeyman had looked into the index he would have been astonished at the number of abstracts which have been contributed by Professor Lewis, and in saying so I do not ignore the valuable assistance of Mr. Whichcord. I am only speaking the sentiments of the members of the Conference if I say that we feel much indebted to the Royal Institute of British Architects for the excellent choice they made. We are also indebted to them for the circular which they issued to their brother members, and for the responses obtained. They formed the practical element in the Conference; the Telegraph Engineers and the Physical Society the electrical element; and the Meteorological Society—well, I don't know what element they supplied, except, perhaps, the digestive. There was one point which I regret, and for which I cannot account, and that was the singularly small number of manufacturers who responded to our circular. We sent to ask them what they were doing, and what rules they were following, but my impression is that we did not have answers from more than one in a dozen

We had valuable replies from about ten manufacturers, but a very large proportion said nothing. Possibly the reason is that many of them are working by rule of thumb, without very much knowledge, and hence were afraid to commit themselves to pen and paper. One or two of those who did reply have committed themselves very considerably with respect to the bibliography. I do not suppose any one was more astonished than I was at the number of books that had been written about lightning-conductors. The list of publications in that report includes 704 works, but many of them are a reiteration one of another, without apparently anything very much beyond copying what had gone before. A remark was made as to our report being of some use abroad. Perhaps it is a little bit of vanity to say so, but I have already had three or four letters from most distinguished electricians on the Continent, expressing their extreme satisfaction with the work, and this must be gratifying to those who assisted in compiling it. With respect to the area of protection I cannot without the black-board make myself thoroughly clear. The main idea to be kept in mind in considering damage by lightning is that of a fluid. I think you will get all the best rules for the formation of conductors if you will imagine a sort of atmosphere denser than our own, or, if you like to call it so, "an ocean," which has the power of being attracted and drawn up just as the tides in the ocean are drawn up by the moon. I must, to be clear, go back to first principles. A flash of lightning is simply the discharge of two opposite electricities, the one in the clouds, the other in the earth. If you have a rod of metal reaching from the earth to the cloud, the lightning would pass down that, and there could be no discharge. If, on the other hand, you have merely a brick chimney, then the lightning, finding a bad conductor, breaks that, and so you have damage done. Take the chimney away altogether, and what happens? The electricity in the earth may be imagined to be drawn up just as the electricity in the clouds is drawn downwards, and they will break across each other at a certain point, and then there will be the lightning flash and a destructive discharge. Now the rule of the angle of 45° is not based upon an electrical theory at all, but upon actual experience. M. Duprez, of Belgium, and others, have for several years investigated the cases in which buildings, already provided with adequate conductors, have been struck, and the question is,—How near to the conductor may a building be struck? Take a church with a single steeple at one end, and a long nave, and perhaps a little transept. If you have a conductor on the steeple it by no means necessarily protects the chancel. It all depends upon the height of the steeple, and there are many cases in which a church with a good conductor on the steeple has been struck on the chancel or transept. That shows that there is a point beyond which the super-elevation will not afford protection, and a large number of measurements, which have been taken of the horizontal and vertical distance from the conductor, give us only two, and those doubtful, cases of injury within a radius of 45°. Those are the facts upon which the rule is based. You will find the whole thing rather fully worked out in the report. Mr. Preece read a paper before the British Association at Swansea, in which he went carefully into the subject from a purely electrical point of view, and he got a curved value, his curved value giving an area of protection rather less than ours. His curve runs down the steeple rather closely, and does not go off at an angle of 45°, but spreads out at the base. Practically the two things are nearly the same. The area protected, generally speaking, is of a radius equal to the height. I have to thank you for the way in which you have received our efforts.

The hon. secretary having put the motion, it was carried by acclamation.

Concerning the question of Architectural Competitions, it was resolved that the report presented by the Special Committee appointed to consider the subject be printed, with other cognate papers, in the "Journal of Proceedings," to be issued on Thursday, the 26th inst.

Birkenhead Town-hall Competition.—We have received copy of a correspondence on this subject, showing dissatisfaction on the part of architects with vagueness of conditions, but it reached us too late to be considered.

ARCHITECTURAL ASSOCIATION.

AT the ordinary general meeting of this Association on the 6th inst., Mr. Aston Webb, President, in the chair, the following gentlemen were elected members, viz.:—Messrs. Jas. Mitchell, J. H. Morgan, P. M. Johnston, G. T. Poole, J. Bathurst, W. E. Fenwick, D. Powell, H. A. Whitburn, W. R. Mack, W. J. Cook, C. J. Bradley, W. A. Webb, L. R. Ford, H. R. Goodrham, W. D. Gravell, A. A. Field, F. W. Pickering, W. F. Young, A. Howell, H. Field, S. S. Markham, J. W. Hughes, F. L. Hooper, F. Simpson, and J. G. Sankey.

The President said it was always a pleasant duty to notice the successes of the members of the Association. This year, the Gold Medal for Architecture at the Royal Academy had fallen, as usual, to a member of the Association (Mr. J. Howard Ince). The second medal of the Academy, for measured drawings, had also been gained by a member of the Association (Mr. T. C. Yates). The Chairman also said that the announcement which had been made of the appointment of their esteemed member, Mr. Hugh Stannus, to be the teacher of modelling in the Architectural School of the Academy, would give them all great satisfaction.

Mr. Ewan Christian was announced to give an address on "Specifications," but having unfortunately (as we are sorry to hear) injured his knee, he was unable to be present. Under these circumstances, Mr. R. C. Page, who had intended merely to move a vote of condolence with the family of the late Mr. Street, R.A., somewhat extended the remarks with which he would have prefaced that proposition had Mr. Christian been present, and read the following brief sketch:—

THE LATE G. E. STREET, R.A.

Since last we met in this room our profession has, as you all know, sustained a great and irreparable loss in the death of George Edmund Street. Our President has asked me to say a few words to-night, and to move a vote of condolence with Mr. Arthur Street. I am sure there is not a man in this room but will agree in the propriety of such a step; for in a society like ours, the energy and enthusiasm of a great architect must always be appreciated, and, therefore, it is fitting and right that when such a one passes away, we shall place on record our appreciation of his powers, and our regret at the loss to our profession. I wish that an abler man than I had been chosen to address you to-night, but as I had the inestimable advantage of working in Mr. Street's office for some years, and as I am not altogether unknown in the Association, I regard the task suggested to me as a duty I owe both to Mr. Street's memory and to the Association, and therefore I felt but little hesitation in acceding to our President's request, as it seemed to me more fitting that what we have to say this evening should be an expression of the feeling of the Association, and as such should come from Association men, and not from those outside our ranks better qualified to speak, and who doubtless, had they been invited, would have attended this evening.

I began my remarks by describing our loss as irreparable, and in no conventional sense have I used the term; for, believe me, as such I regard it. Although, fortunately for our profession, there are many men left to us of distinguished ability, I venture to state, without fear of contradiction, that Mr. Street's death has left a void in the ranks of our profession which it is quite impossible to fill. Whether regarded as an artist, a man of business, or a man of the world, he was, indeed, remarkable; and although doubtless there are many architects possessing those advantages separately (though even then I am fain to believe they possess them in a lesser degree), I am not aware of the existence of a man in whose person they are combined as they were in the person of George Edmund Street. It was impossible to be in Mr. Street's society without feeling that one was in the presence of a man of mark,—a man amongst men; his appearance and manner impressed one at once, and seemed to stamp him as a man far above his fellows. So great a loss have we sustained in the death of Mr. Street, that I am almost disposed to regard it as a professional calamity, occurring at a time like the present, when architectural taste is in such a state of hopeless confusion. The present is not a time when we can afford to lose a recognised leader of an architectural school of thought, and that Mr. Street's death will affect the progress of the Gothic cause I, for one, have no doubt. To our finite understandings it seems very hard that a man such as he whose loss we deplore should be taken from the scene of his labours at the very height of his success, his popularity undiminished, his artistic powers showing no sign of decadence, and last, but not least, with a new career before him in the cause of art as President of the Institute. From his appointment to the chair of the Institute much was to be hoped for, and, indeed, his influence had already made itself felt, his opening address receiving far more attention from the daily press than is usually accorded to architectural utterances. The "leading journal" thought fit to give an account of the opening meeting and a leader on the subject of Mr. Street's address. I fear we must regard this action of the press in this matter as due rather to the professional position of Mr. Street than to a newly-awakened interest of the public in architectural questions. As an artist, Mr. Street, as is well known to you all, possessed wonderful ability; but on this subject I think it would be presumptuous for me to speak. I may, however, say in passing that it always seemed to me Mr. Street was at his best when dealing with a small subject such as a village church, or a group of buildings such as the Convent at East Grinstead. The simple beauty of the detail, the picturesque grouping of the parts at East Grinstead, mark the work as coming from the hand of an artist, and the design of the building is, it seems to me, such as to rank it with the best buildings of Mediæval times. To those who knew Mr. Street's method of working it never occasioned much surprise that his smaller buildings were more successful than the larger ones, as a design was almost invariably treated in sections or parts, and each detail seemed to be regarded as a separate work rather than as a portion of the entire scheme. To a man of lesser ability this method of procedure would be impossible, and with such a large practice as Mr. Street had, any other mode of work would have precluded him from giving the personal attention which he very justly thought his clients had a right to expect. I have no intention of giving a list of his works; those of you who wish for information on this point should consult the professional journals; nor do I, for the reason already stated, propose to discuss the relative merit of Mr. Street's designs, contenting myself with the mention of the design for the Convent at East Grinstead, which has always been, and, I believe, always will be, to me, at least, a thing of beauty.

As a worker, Mr. Street was simply indefatigable, and the rapidity with which he worked, and the number of drawings he made, have always occasioned surprise; indeed, when I have mentioned the matter to any of my brother professionals, the information I have given has invariably been received with an air of incredulity,—quite excusable when, as is no doubt the case, such a man as Street is judged by other men's standards. In his work he never spared himself, and rarely spared any one else; he was actuated by a stern sense of duty, and in all his dealings was entirely honourable and just, and as he behaved towards others, so did he expect others to behave towards him. His power of detail was remarkable; many of his mouldings will compare favourably with ancient examples; not only were they beautiful in themselves, but in many instances Mr. Street drew the mouldings he desired without the necessity of any alteration, and it was by no means uncommon for him to carry on a conversation at the same time as he was preparing details. In many instances designs for buildings which seemed somewhat below Mr. Street's standard have been redeemed by the beautiful detail which he put into his work as it progressed, and that, too, without appearing to alter the original design. All the work undertaken by Mr. Street was sound in construction, and of enduring character; and I recollect his once telling me, "Remember always that we build for all time": this, indeed, seemed to be the idea he ever had before him. As we all know, difficulties in carrying out a building must and will arise, and few men could more readily devise a way out of an awkward situation than Mr. Street; so clever was he in this respect, that what with a less able man would have been a blemish in the design, became with him a positive merit. Whatever he undertook he did thoroughly, and every building he was called upon to carry out bore the impress of his own

ability and genius. It was this thorough devotion to his art which was his chief characteristic, and few can read his Academy lectures without realising that the talented author really felt and meant what he said; and, further, that what he most desired was not mere popularity for himself, but that others should feel and act as he did. On reading these powerful addresses one feels inspired with fresh energy and enthusiasm, such as one experienced when the glory and beauty of Gothic architecture came as a revelation in the youthful days of one's studentship.

As a man of business, Mr. Street was shrewd and clear-headed, and always expressed his views distinctly and decidedly. He possessed the power of saying the right thing at the right time, and invariably made his points tell. He had the courage of his opinions, and did what he believed to be right and just regardless of consequences. As I knew him late in life, so I believe him to have been all along, a man to whom success came, leaving him as it found him, pursuing the path of duty, not spoilt by the accident of the circumstances in which he found himself. Such, gentlemen, is a brief sketch of the late George Edmund Street, a man who, all through his career, brought honour to the profession he loved so dearly, and who now rests from his labours within the walls of the glorious Abbey of Westminster, beside a multitude of noble and great men whom the world has elected to honour, and, in his case, the honour conferred on him is reflected on the profession he so long adorned.

Much could be written with regard to Mr. Street, and doubtless one or another of his contemporaries will undertake the task of writing a memoir. I have simply endeavoured to express my view of Mr. Street as I knew him, and my knowledge is necessarily limited both by time and opportunity. It now simply remains for me to propose the vote of condolence, which is as follows:—

"The members of the Architectural Association have heard with inexpressible regret of the death of George Edmund Street, R.A., and desire to convey to Mr. Arthur Street their sincere sympathy in his bereavement, as well as their condolence with him in the irreparable loss which he has sustained."

Mr. L. C. Riddett said that, as one of the Vice-presidents of the Association, he had been asked to second the vote of condolence, which he did with profoundly melancholy feelings. His personal acquaintance with Mr. Street was of the slightest, but, during business intercourse with him on one occasion not long ago, he had been struck by the marvellously clear way in which he had grasped a situation which was one of extreme difficulty. Mr. Street would be remembered amongst other things for his opening address as President of the Institute, and the burden of that address would, he trust, continue to ring in the ears of the public. Mr. Street's bold advocacy, in that address, of good building-work in the houses of the people must produce fruit. The time must come when architects as a body would have to protest as they had never yet protested, and to take decided action, against the bad vernacular buildings of the present day. Mr. Street's loud protest against it, from his position as President of the Institute, was a very satisfactory sign. In the same address Mr. Street had referred to the future of the Association in terms which, though giving rise to some difference of opinion, were dictated by his kindness of heart and by his appreciation of the work of the Association.

Mr. Arthur B. Pite, as a student who felt that he owed much to Mr. Street's teaching, supported the vote of condolence. It seemed to him that the great lesson to be learned from Mr. Street's career as an architect was constancy of purpose. He endeavoured earnestly to find the truth, and finding it early, with a steadfastness and determination beyond all praise he never swerved from it, either to the right or to the left.

Professor Kerr, who was called upon by the chairman to speak, said he had come down to the meeting in the expectation of hearing his friend Mr. Christian discourse upon an important practical subject, and, therefore, he was not at all prepared to say anything on the sad subject of Mr. Page's address. His (the Professor's) individual tastes had never been in any degree in accord with those of Mr. Street, but at the same time he had always esteemed him personally, and had supported him whenever occasion offered for anything being done by him to the advantage of the profession. It was not at present easy to grasp the precise position which Street occupied, or, rather, it was easy to overlook it. In order to know what had been doing in the Gothic revival within the last twenty years by its most conspicuous leaders, it was necessary to contemplate the characters of Sir Gilbert Scott, Mr. Burges, and Mr. Street. While Pugin might be called the John the Baptist of the Revival, these three men were its apostles. There were great differences in the characters of the three. Sir Gilbert Scott was a very great man,—a much greater man than some people supposed. He was a man essentially for the public of this country, and was a man of compromise. He struggled very hard to discover what was the principle he was expected to stand by, but he was not, like Street or Burges, possessed by an intuitive determination to do one thing, and nothing else. He was perhaps the most popular architect of the nineteenth century. He was most amiable in his disposition, upright, friendly, and generous in his dealings and altogether a man of very refined character. But he was essentially a man of compromise. Burges and Street, on the other hand, were not men of compromise, but were the resolute and determined foes of compromise. It might be thought that Burges was tending towards compromise when, during the last year or two of his life, he began to speak favourably of Greek architecture. But in that there was no tendency to compromise. Burges, who was instinctively an artist, began to see that there were two sides to the question, and he showed that he was capable of looking at the question from its opposite side. Street was, on the other hand, so resolutely bent on the pursuit of one object that he had no time to consider the other side. Burges was a man of very refined and elegant tastes, and his designs, though masculine, were withal elegant. The elegance which characterised them was not present in Street's work in the same degree. Street was the representative of absolute unswerving masculinity and muscularity. If anybody had said to him that a tower, for instance, designed by him was ugly, his answer would have been something like this: "I don't care if it is, if it is true to its purpose. If it indicates my intention, if it is architecture, sound and good, you may call it 'ugly' if you please." The loss of Mr. Street at the present moment would prove to be, he thought, a great blow to the Gothic revival. Considered as an artist, his loss was very great, but that could be repaired. There were several architects, men of sincerity, fixedly attached to the same end which he had in view, who would take his place so far as related to the movement which he represented, but the supreme leadership which had devolved upon him since the death of Scott and Burges would not, he thought, be taken up by any one of his friends or successors. As a dispassionate spectator he should be sorry to see any weakness accrue to the Gothic camp because of Mr. Street's death, because he thought that Mediæval architecture had still a career before it in this country, especially for ecclesiastical work, and he did not think that the whole of the excellences of the style had yet been revived.

Mr. J. P. Seddon said that Mr. Street was a personal friend of his, and one for whom he had the greatest regard. In the course of his remarks, he incidentally observed that we have not in this country a good translation of M. Viollet-le-Duc's "Dictionnaire." [This remark provoked the suggestion, by a subsequent speaker, that the work of worthily translating the "Dictionnaire" should be undertaken by the profession as a memorial to Mr. Street.]

Mr. Cole A. Adams, and one or two other gentlemen, supported the vote of condolence, Mr. Adams giving it as his decided conviction that Street's detail would compare with anything that had been done, ancient or modern.

The vote of condolence having been passed, the meeting terminated.

The Collected Compositions of H. R. H. the Prince Consort—We are glad to hear that Messrs. Metzler & Co., of Great Marlborough-street, are, by command of Her Majesty, preparing for publication a complete collection of the Musical Compositions, Sacred and Secular, of H.R.H. Prince Consort, the whole being produced under the able supervision of Mr. W. G. Cusins, Her Majesty's "Master of Musicke."

MAINTENANCE OF MAIN ROADS THROUGHOUT THE COUNTRY.

MR. GEORGE BURT, of Grosvenor-road, has addressed a letter to the President of the Board of Trade on this important matter. Mr. Burt says that having great faith in the system pursued by the late Sir James Macadam of making and maintaining roads with proper materials and in first-class condition, he would recommend that a similar system be adopted with regard to the main roads throughout the country. He continues,—"As an essential element to this being carried out, I am of opinion that all the main arteries of traffic should be distinguished as 'county roads,' and be under the control of one Board and one practical road surveyor,—not a civil engineer or architect only,—for each county; and that the Secretary of State, or some other person, should have the necessary power, from time to time, to declare a road a county road or *vice versâ*. The main sewage through these roads, as well as county bridges, should also be under the control of the same Board." Mr. Burt is of opinion that if the roads were made of suitable material, and once got into a proper condition, they could be efficiently maintained at a cost of something like 50 per cent. less than is entailed by the present piecemeal and extravagant mode of maintaining them.

THE "NEW ROAD" AND PAVING QUESTION.

DECISION AGAINST THE HACKNEY DISTRICT BOARD OF WORKS.

MR. BARSTOW has given an important decision at the Clerkenwell Police-court in the case of Messrs. G. Searle, T. Young, and W. A. Smee, who were summoned at the instance of the Hackney District Board of Works, for payment of the sums of 54*l.* 5*s.* 11*d.*, 52*l.* 7*s.* 4*d.*, and 44*l.* 8*s.* 10*d.* respectively, being the apportioned paving rate in respect to Woodberry Down, where they resided.

Mr. Richard Ellis, the clerk, appeared on behalf of the Board. The defendants were represented by Mr. Poland, instructed by Mr. Ricketts.

Mr. Ellis, in opening the case, stated that the question at issue was one which had caused a great amount of litigation under the Metropolis Local Management Acts and the Amendment Act. The Board in 1869, under the powers vested in them by sec. 105 of the first, and sec. 77 of the second Act, formed and completed the road in question, the expense of which was apportioned to the inhabitants, but it was not paved in consequence of their desire that it should remain in a gravelled state in order to present a suburban appearance. Since that time the traffic had increased, and the Board in June last considered it necessary that the paths should be paved, and the present proceedings were to recover the amounts apportioned to the owners in consequence.

Mr. F. S. Pursey, deputy clerk, produced the minute-book containing the resolution of the Board on the 22nd of April, 1869, which was to the effect that the road be formed and completed at an estimated gross cost of 804*l.* 18*s.* 6*d.* to be apportioned by two instalments, the first of which was to be levied as soon as the work was commenced, but the second was not to be called in till it had been executed to the satisfaction of the Surveyor.

Witness then produced the minute-book containing the resolution of the 22nd of June, 1881, directing that the footpaths should be asphalted.

Mr. J. Lovegrove, the surveyor to the Board, stated that upon the resolution of the 22nd of April, 1869, being passed, the first instalment of the apportioned amounts were levied upon the owners. The Board had decided at that time to pave the footpaths 4 ft. 6 in. wide, but at the wish of the owners the road was left in a gravelled state. Since that time the Board had kept the road in thorough repair.

Mr. Poland contended that the Board, under the powers vested in them by the Acts already referred to, exercised their right in 1869, and at that time formed and completed the road in question, levying the apportioned expense upon the several owners chargeable. This having been done, their right ceased, and the road remained entirely in their power. He cited in support of this, the case of Regina *v.* Hackney District Board of Works, in which it was held that, having once levied, they were bound for

the future to keep the road in thorough repair, and were not exonerated from any expense arising therefrom. It seemed to him that the Board had entirely forgotten what they did in 1869, and having regard to the action taken by them at that time, his clients were not liable in any further amount. Under section 106 the road could not be considered a new one, and he asked that the summons might be dismissed, with costs.

Mr. Barstow thought the road was not a new one, within the meaning of the Act, and the resolution of the 22nd April, 1869, relieved the owners of any further responsibility. He dismissed the summons, and allowed ten guineas costs.

Mr. Ellis asked for an appeal summons with respect to the question of the new road; but Mr. Barstow declined to grant it.

LYCEUM THEATRE.

THE general scheme of decoration adopted in the entrance-hall, vestibule, and grand staircases of the Lyceum, just now reopened, is eclectic, its character being, however, based chiefly on Eastern designs and tints. The general tone of colour is rich red and gold, relieved by greenish blue, deep gold being used in the ornamentation of the former, and green-gold in that of the latter. The designs for the fretwork and stencilling are chiefly Arabian and Persian. The grand staircase, now nearly 20 ft. wide, opens between two massive gold candelabra which stand upon high plinths of majolica. The stairs are covered with a rich velvet pile Axminster carpet, of ruby colour, with a wide border of amber and black. At the top of the staircase, where it enters the vestibule, is a handsome silk plush *portière* of old gold colour stamped with a broad band, and hanging in curiously-rich folds. The same scheme of colour which governs the decoration of the hall is carried into the vestibule. The balustrade, which runs round the balcony in the vestibule, is of malachite, with pillars of gold, behind which rises a wall of greenery, palms, and foliage plants of all kinds. The doors leading from the vestibule to the circle, are of silk plush, to match the *portière* of the grand stair, and studded with gold nails in an Eastern pattern. The vestibule is lighted by Moorish candelabra, gaseliers, and swinging oil-lanterns, all of which have ruby glasses. The passages and stairs are lighted by the swinging lamps in addition to usual gas appliances. The decorative work has been designed and carried out by Messrs. Campbell, Smith, & Campbell, of Southampton-row, and deserves praise.

The revived "Two Roses," with which Mr. Irving opened, is admirably well played, and fills the house nightly.

DARWEN.

THE new schools for St. James's parish were formally opened on the 31st ult. The buildings are in the Gothic style, and one story high, and have been designed by Mr. W. Perry, architect, of Market-street, Darwen, and Lord-street-chambers, Southport. Provision is made for a mixed school, 60 ft. by 42 ft.; infants' room, 36 ft. by 28 ft.; two class-rooms, each 16 ft. by 11 ft. 6 in.; one, 22 ft. by 20 ft. 6 in.; another, 22 ft. by 14 ft. 8 in.; and cloak-rooms and porches. There is one large cellar, 36 ft. by 27 ft., utilised for sundry purposes, and also for the heating apparatus. The cloak-rooms are in close proximity to the main entrance to the school, and side entrances to the playgrounds, so that they may be utilised by the scholars without in any way affecting the order of the school. All the rooms open directly into the main school. The total cost of the buildings has been about 2,000*l.*, and the following are the names of the local contractors who have carried out the work in a satisfactory and substantial manner:—Mason and joiners' work, Messrs. Lloyd & Millward; plastering, Mr. R. Watson; plumbing and glazing, Mr. J. S. Briggs; slating, Mr. Miles Eccles.

The Balloon Society.—This society, which takes a wider range than its name suggests, holds its meetings at the Royal Aquarium. On this Friday evening, January 13th, a lecture on the Elements of Art, will be delivered by Mr. Joseph A. Stark, architect.

CLERKS OF AUCTIONEERS AND SURVEYORS.

THE Lord Mayor presided, on the 7th, at a preliminary meeting of the members and representatives of a large number of firms of surveyors, auctioneers, estate and house agents, at the Auction Mart, Tokenhouse-yard, when the question of the formation of a benevolent fund for the benefit of the clerks of auctioneers and surveyors was brought under their consideration. At a subsequent public meeting, largely attended by both principals and clerks, Mr. Daniel Watney presided, and said, that as treasurer of the Auctioneers' Benevolent Fund he knew that there were numerous applicants for its benefits; but notwithstanding that many of the cases were very distressing, they could not be relieved because the applicants not having been in practice did not come within the rules of the fund. Therefore, he and others felt the necessity of a society or fund for the benefit of the excluded class being formed. He thought that a benefit fund for the clerks of surveyors and auctioneers was much needed. It ought, he thought, if formed, to be under the entire control and management of the clerks themselves, although for himself and other heads of large firms he could say that they would give such a deserving movement every encouragement and support, and help, as far as they could, those who desired to help themselves. On the motion of the chairman, supported by Mr. Galsworthy, the following resolution was carried unanimously:—

"That it is desirable to establish a provident society, to be called the Benevolent Fund for Clerks of Surveyors, Auctioneers, Estate, and House Agents."

A committee was afterwards elected.

LIGHTING BUILDINGS.

SIR,—In reply to "Electricity" in the *Builder* of the 31st ult., I may tell him that if the gas-pipe is perpendicular to the plane of the screen the surface at the centre of the latter will receive the greatest illumination when the light is placed at a distance of 14·14 ft. from the wall. This distance is easily found by multiplying the given distance of the gas-pipe from the centre of the screen by $\sqrt{\frac{1}{2}}$, that is by ·707 nearly. The following investigation will show how this rule is arrived at. Let (x) be the distance of the light from the wall, and let (a) be the distance of the gas-pipe from the centre of the screen, also denote the angle under which the rays of light meet the surface by Q. Now, the degree of illumination varies as the square of the distance (r) inversely when Q is constant, and directly as the sine of Q when (r) is constant. But $r^2=a^2+x^2$, and $\sin Q=\frac{x}{r}=\frac{x}{\sqrt{a^2+x^2}}$

Hence by the theory of variation the intensity of illumination varies, as $\frac{x}{(a^2+x^2)^{\frac{3}{2}}}$ when r and Q are both variable quantities. Therefore, when the illumination is greatest the value of the latter function must be a maximum; or taking the logarithm the value of $\log. x-\frac{3}{2}\log.(a^2+x^2)$ must be a maximum. Denoting this last function by u, and differentiating, we have

$$\frac{du}{dx}=\frac{1}{x}-\frac{3x}{a^2+x^2}=\frac{a^2-2x^2}{x(a^2+x^2)}$$

Equating the last expression to zero, we find $x=a\sqrt{\frac{1}{2}}$. Thus, as x passes through this value $\frac{du}{dx}$ passes through $+0-$ and the value of the function is then a maximum.

J. G. VINE, F.R.A.S.

ALBISSIMA PAINT.

SOME strong testimonials to the goodness and usefulness of the Albissima paint from men whose names have weight have reached us, and these are capped by the fact that it obtained the silver medal at the late Brighton Sanitary and Domestic Exhibition, Mr. Crace, of Wigmore-street, and Mr. R. W. Edis, F.S.A., being the judges in the class to which it belonged. The fact that it is absolutely non-poisonous commends it to us, and those who have used it claim that its covering power considerably exceeds that of the best white-lead, and works with ease under the brush.

LEISURE FOR THE WORKING CLASSES.

ONE of the shrewdest and pleasantest of modern writers, Arthur Helps, used to say that the great end of work was to obtain leisure, but this was going a great deal too far. Work in itself is a useful and even a grand thing. There is no honest vocation in which we may be engaged that is not good for other reasons than that it earns the maintenance of the worker, which again is a more important matter than the earning of more or less leisure for him. But without subscribing fully to Mr. Helps's assertion, there is no doubt that the worker is the better for having leisure to look forward to, that the hope of a little leisure every day sweetens the day's work; that the prospect of a longer holiday, as in the case, say, of our English lawyers, enables them to do an enormous amount of work during term time; and the thoughts of the freedom and leisure, after a fortune is made, keep business men working steadily and cheerfully year after year till the wished-for competency is realised.

With some workers there is very little, if any, time allowed for leisure. There is no one amongst them for an idle man to be idle with; and though perhaps for a week or so a visitor may find sufficient amusement with them in London, especially during the present season, there soon comes a time when he longs for his ordinary work. The distribution of leisure, like that of wealth, is not so unequal in a new country as in an old one; and it is to be noticed that, while many of our workpeople who have emigrated to one or another of our colonies, speak in their letters home of having shorter hours of labour, more holidays, and higher wages than when in England, they remark also on the fact of it being difficult, in the land they have selected at their future home, to point to ten idle men not superannuated, or to find as many women as completely absolved from domestic cares and duties as those of the Upper Ten Thousand are in the country from which they sprang. The girls of the well-to-do classes, however, when they leave school are apt to find time rather heavy on their hands, unless their mothers are wise enough to organise sufficient employment for them, or unless they have some tastes strong enough to become pursuits. We have seen clever girls turn with disgust from crochet and crewel work, morning calls, lawn tennis, and evening parties, as being too useless for the whole occupation of a rational human being, and who from their hearts envy their brothers who go into offices or into business, who earn their leisure and prize it. In America, they say there is no leisure class; but that refers exclusively to the men,—the womankind belonging to the rich business men have leisure enough and to spare.

In France, as well as in this country, for those with time and money at command, there are organised various forms of amusement, exercise, and dissipation for morning, noon, and night,—sport in every varied form,—public entertainments and private hospitalities,—travel abroad and at home,—and these meet the wants of what are called emphatically the leisured classes. But with the shortening of the hours of labour, which is one of the forms of modern progress in the interests of both physical and intellectual development, there comes into the possession of all the working-classes an amount of leisure which it is difficult for them to utilise profitably and cheaply.

A man who gets as much for nine hours' work as he did for ten is poorer at the end of the year if he spends more money through not knowing what to do with his time. The artisan or the day labourer takes all the public holidays at his own cost; and it shows how deeply rooted is the idea that a holiday is good when he clings to it, even though he both loses wages and spends money.

The author of a book on "The Soul, its Sorrows and its Aspirations" (Professor Newman, I think), expresses his conviction that the working-classes, then more uneducated than they are now, found the enforced idleness of the Sunday a weariness, and that a greater boon would be given by having two half-holidays,—one on Sunday and one on Wednesday,—in its stead. This he advocated in the interests of the spiritual life, as well as of the intellectual and moral, and looking on the Sabbath as made for man, and not man for the Sabbath; for nothing is more deadening to devotion than keeping up its forms when the heart is not in them. But the half-holiday could not be utilised for a visit to a friend at a little distance, and for keeping

up family associations, like the whole day. In French life, we notice that the sempstress or shop-girl looks forward to her turn of a *dimanche tout entier*, a quite whole Sunday, which may come every other week or every fourth week. She certainly is not overburdened with leisure, for the hours of work in France are longer than in England, and there is no weekly half-holiday, such as Professor Newman suggests, to compensate for the encroachment on the Sunday's rest.

The difficulty of finding cheap and innocent recreation for the leisure hours the working people have fought so hard for appears to be at times so great that many men of a higher station look on them as a doubtful good. The time has come to the workman before he knows how to use it; and the theatre, the music-hall, and the public-house have more attractions for him than the reading-room or the book at home. It is not so much instruction or information that the tired workman pines for: it is cheerful talk with his fellows about the news of the day, and that cannot easily be had at home. The female workers, such as girls in clothing and vest factories, who now have their day limited, and who, on the average, earn considerably less wages than those of the other sex, though they spend too large a proportion of their wages in dress, utilise their leisure so as to save money rather than to spend it.

We should be sorry to have it thought that our remarks are applied to working-people generally. What we say, however, is, in plain words, that many of those who depend on their daily toil to keep body and soul together, had they to work but six or even four hours during the four-and-twenty, would find even then little time for leisure. We have not far to go to convince ourselves of the fact.

AN OLD COLONIST.

THE CITY CHURCHES.

AT a meeting of the Council of the City Church and Churchyard Protection Society, Mr. Teulon in the chair, it was announced that another City rector had been served with notices that his church is scheduled for demolition by a railway company. The London and South-Western Railway having scheduled the church of the united parishes of St. James Garlickhithe, and St. Michael Queenhithe, together with the church of St. James Garlickhithe, in a Bill to be introduced in the forthcoming session, the Council has unanimously decided to repeat their action of 1879 with respect to the church of St. Mary-at-Hill, which was scheduled by the Inner Circle Railway, but by the interference of the President of the Society, Lord Devon, in the House of Lords, and by the Hon. Percy Wyndham, M.P., in the House of Commons, a clause was inserted in the Bill in Committee binding the company to take another route, and the church is still standing.

The Council determined not only to give this railway Bill the utmost opposition in their power, but also the Bill which is threatened to be introduced into Parliament in the coming session to demolish the City churches in a wholesale manner; the Union of Benefices Act of 1860 having proved a perfect failure, since the founding of the City Church and Churchyard Protection Society in 1879, not one City church having been destroyed during the last three years.

The following resolution, proposed by the Rev. Arthur Trower, and seconded by Mr. Henry Wright (honorary secretary), was carried *nem. con.*: — "That the Council of the City Church and Churchyard Protection Society learn with much regret that the Church of St. James Garlickhithe has been scheduled by the new scheme of the London and South-Western Railway. The Council are prepared to oppose such a scheme by every means in their power on the ground that the church is one of Sir Christopher Wren's masterpieces, that there is a good congregation and a resident population, with the Rector living in the City."

Carlisle.—A new coffee tavern has been opened here. It has been built at the sole cost of Messrs. Ferguson Bros., by Mr. Geo. Black, contractor. The architect of the building was Mr. Geo. Dale Oliver.——A new mission-hall, class-rooms, and keeper's house is about to be erected in connexion with St. Paul's parish. Plans, prepared by Mr. Geo. D. Oliver, architect, have been approved, and tenders will be invited shortly.

GLASGOW MUNICIPAL BUILDINGS COMPETITION.

THE assessors, Mr. Chas. Barry and Mr. John Carrick, the City Architect, have got through the first part of their duties. Their task has been to examine 125 sets of sketch designs, sent in by 110 competitors (several sending more than one design), and to reduce them to ten, whose authors are to compete in much more detail. Each of the ten, it will be remembered, is to have 150*l.* towards his expenses; and the one eventually adjudged the best is to have the commission as architect, the estimated cost being a quarter of a million,—*i.e.*, if he prove (when his envelope is opened) to be a man of good repute, and fit to be entrusted with so large a work.

The assessors have laid it down as a principle not to open any of the envelopes, not even those of the selected ten, but, as our advertising columns show, to inform them by their mottoes in the public papers of their position.

The conditions for the second and final stage of the competition have been prepared. The final designs are to be sent in on the 1st of June. We understand that some very fine designs have been sent in, and are glad to infer that Classic architecture still has distinguished and able exponents.

DUBLIN SCIENCE AND ART BUILDINGS COMPETITION.

IN reply to the offered premiums in this competition, sixty-eight sets of designs were received, and from these the committee appointed for the purpose selected five, the authors of which have received, or are to receive, 150*l.* each, with instructions to enter a final competition, the author of the best design to have charge of the works at the usual rate of commission.

We learn that of the selected five, three are from London, one from Liverpool, and one from Bolton.

It will be some time before the final competition will be determined, as the instructions have only just now been issued. The following compose the Committee of Selection:—Lord Powerscourt, Sir George Hodson, Sir Robert Kane, The Lord Major (Mr. G. Moyers), and Mr. John McCurdy. Colonel Festing, R.E., on behalf of the Science and Art Department, and Colonel Rae, R.E., for the Board of Public Works, act as Assessors.

FROM ABROAD.

Ancient Roman Architecture.—The *Hamburger Nachrichten* reproduces an address delivered by Professor Eissenhardt before the Association of Art and Science, dealing with the development of architecture in ancient Rome. The old Roman house covered with straw and with three divisions, was considered by the lecturer as closely resembling the type of domestic architecture described by Galienus as existing in his Pergamic home, and of which an example may still be seen in the so-called house of Romulus at Rome. Roofing with shingles formed the next step, and then progress seems to have remained stationary until Rome entered upon the development of culture which was working its way from the East. The want of trees in the colonies bordering on some parts of the Mediterranean caused the inhabitants to devote attention to substitutes for wood. From the investigations made it would seem that mortar was composed at an early period of pozzolano earth and lime. Beams were formed of planks and boards joined together by some adhesive substance. The first notable change came from Greece in the shape of peristyle buildings, in which marble and burned brick took the place of air-dried bricks. Staircases do not, however, seem to have much advanced beyond primitive models and the absence of windows in the walls (as still seen in outlying Italian villages) forms a disadvantage. Afterwards there arose a distinct taste on the part of Roman architects instead of a mere imitation of foreign models. The main roads were first laid with loose stones, and were afterwards paved. The Via Appia is a notable instance of Roman street-making; structures of a magnificent character arose, such as triumphal arches, baths, bridges, and aqueducts. But while Rome thus advanced in architecture it was near its political downfall; after which architecture, in common with other arts, was for many ages in a dormant condition.

Wall-paintings at the Emmeran Church at Mayence.—The most recent examinations seem to have established the fact that the whole of the church had wall-paintings of a similar character to those discovered some time ago in the northern side aisle. The whole of the walls have been freed from the parget with which they were covered, and much valuable work has been brought to light. Sketches have been taken of the various subjects discovered, where they have been sufficiently preserved to admit of this being done.

SAFETY IN THEATRES.

THE discussion of this subject has spread far and wide. M. E. Colibert, architect, of Madrid, has addressed a letter concerning it to the "Municipalités des Deux Mondes." After urging, as others have done before, that where theatres are isolated, special staircases should be formed on the side walls of the building communicating with the different floors, he makes the bold proposition that where the theatre is surrounded by other buildings the staircases of these should be utilised by means of openings through the party-walls at different levels. Iron doors, and a guardian at each during every performance, would afford means of emptying the house with rapidity in the event of fire or panic. The inhabitants of the houses would receive compensation for the interference with their privacy. The public safety, says M. Colibert, requires that a sacrifice of money shall be substituted for human hecatombs.

THE ARTISANS', LABOURERS', AND GENERAL DWELLINGS CO., LIMITED.

SIR,—My attention has been directed to a paragraph in an article that appeared in the *Builder* of December 24th last, entitled "The King of Spain's Commissioner on English Artisans' Dwellings," in which it was stated that Senor Belmas, although speaking very favourably of the Shaftesbury-park Estate, yet found the structures built thereon "somewhat flimsy;" at the Queen's-park Estate he is reported to have thought that the land was very damp, and that some of the houses were being built on refuse.

Such statements, if left uncontradicted, may create a very unfavourable impression, on the part of your readers, of the operations of the Company, and may tend to discredit the good work it is now carrying on. I must therefore beg leave, as the architect of the Company, to state—in the first place, that the dwellings of the Company are built in a much more substantial manner than is usual in the erection of such small cottage property as that which it is the object of this Company to build, and that it could not be built more substantially unless much higher rents were charged. Secondly, at the Queen's-park Estate the cottages are not being built on refuse; the trenches are being carried down in every case to the solid ground. There is no refuse on the estate, but in cases where the ground is filled up, a layer of concrete is laid over the whole area of the building, as now required by the Buildings Act. The land is a stiff clay soil, and as there are from 400 to 500 cottages now being built thereon, the roads in that part of the estate are of course much cut up, and the surface drainage is interrupted, so that no doubt the land does appear to be very damp after heavy rains; but when the houses are finished and the roads made, I can confidently state that on no other building estate will there be better drainage than at Queen's-park.

I can find no record of Señor Belmas visiting the estates of the Company, and much regret he should have been so much mistaken and that he should have published such opinions as he appears to have formed without endeavouring to learn something of the important operations of the Company from those whose duty, as well as pleasure, it would have been to have afforded him every information.

The Artisans', Labourers', and General Dwellings Company exists solely for the purpose of erecting cheerful, healthy, and properly-constructed cottage homes for the industrial classes, at as cheap rentals as is consistent with the payment of a very moderate return by way of dividend on the capital expended. The rentals vary from 7*s.* to 13*s.* per week; but on a new estate which is just now being developed

at Hornsey, the rentals will be very considerably lower.

In conclusion, allow me to state that a due appreciation of the Company's work is sufficiently shown by the fact that houses cannot be built fast enough for the requirements of the tenants, and that on the two large estates of the Company, above mentioned, the loss from empty houses and non-payment of rent is quite inappreciable when compared with the rentals received.

ROWLAND PLUMBE,
Architect to the Company.

THE USE MADE OF A FREE LIBRARY.

THE borough of Middlesbrough-on-Tees has had now a free library for ten years, and in the decade there has been an interval long enough to appreciate the uses of such an institution in a town that needed such a one, but was not the most likely to furnish readers. It is, as most readers know, a new town, comparatively,—a town that has attracted to itself a vast population from many parts. Agricultural labourers have been drawn in; ironworkers from Staffordshire and Wales; shipbuilders from Scotland, and others,—many without taste for reading. There was, down to ten years ago, a Mechanics' Institute that had a comparatively large number of members, but which deemed the free-library system more likely to attract readers, and transferred its library as the nucleus for that of a more popular one. Thus, and with the support of the penny rate, the new institution started ten years ago. Its receipts for the financial year just closed were 746*l.*, of which 700*l.* was derived from the town council, and the bulk of the remainder was in the form of fines. With this sum two large free reading-rooms have been kept up and the free library maintained, 392 books being added in the year to the 8,891 previously in the library. In addition, some sixty-three books, worn out by circulation, have been replaced, and six books that had been lost were replaced also by the borrowers or guarantors. When the library was first commenced 33,073 books were issued yearly; last year 58,748 books were so issued, so that the increased popularity of the institution and the enlargement of the taste for reading is at once shown. And it is interesting to notice that the increase is not confined to fiction alone. The number of issues of books on theology has doubled in the decade; those on moral philosophy more than doubled. Natural philosophy has added 50 per cent. to the amount of the issues at the beginning at the beginning of the decade; history and biography are doubled; drama and poetry are increased in like ratio; art-books are trebled; whilst essays and lectures are less used than ten years ago. Periodicals have doubled their issues; fiction has been not quite doubled, though it is of course now, as of old, the preponderating issue, and juvenile books have been issued also twice as much. There have been 8,741 borrowers of books since the beginning of the library, of whom some 40 per cent. may be said to be employers, clerks, and professional persons; 35 per cent. are artisans; 16 per cent. are working women; and the bulk of the remainder are boys and girls at school. Out of the issues of the books 67 per cent. is the proportion of books of fiction; over 8 per cent. that of history and biography; natural history, &c., and magazines circulated last year over 5 per cent. each; and juvenile books stand next highest in the remaining classes on the list.

These dry facts record more or less the story of the Middlesbrough Free Library. It is true that out of a population of 50,000, one-fourth only are borrowers, and that is a small proportion, but it is a growing one, and to it is to be added the vast numbers who use the free reading-rooms frequently. The library is growing slowly, and as it grows it must be expected that it will become increasingly popular. But the main idea to be drawn from the record of ten years' work is that the people increasingly appreciate their institution; that it draws a larger number of supporting borrowers and readers; and that there are circulated amongst them a much greater number of volumes than under the old system. And as the cost to the ratepayers,—1d. in the £,—is but 700*l.* a year, it must be considered that as one of the real "resources of civilisation," and as one of the humanising influences of the times, it is one of the cheapest. Those who know the town and its singularly mixed, and at times rough, population, will recognise the fact that the opening of two free reading-rooms and a free library have done much good and familiarised the people with a literature that would have been in considerable degree above their means of acquirement. Middlesbrough has not hitherto housed her Free Library over well; but in the municipal buildings that she is expected to build soon, it is to be hoped that there will be not only suitable but elegant preparation for what is one of the cheapest, the most useful, and the best known of her institutions, and what must have a higher use in the future than in the past.

BUILDING PATENTS.*

APPLICATIONS FOR LETTERS PATENT.

5,721. J. S. Stevens and C. G. Major, Battersea. Hydraulic lifts. Dec. 30, 1881.

5,735. T. Drake, Huddersfield. Apparatus for heating water for warming rooms, &c. Dec. 31, 1881.

5,747. A. M. Clark, London. Roofs for protection of buildings in course of construction, &c. (Com. by A. C. de Barbaran, Paris.) Dec. 31, 1881.

30. Sir W. W. Hughes, Bayswater. Fire-grates. Jan. 3, 1882.

33. S. L. Hunt, London. Street cleaning and sweeping apparatus. Jan. 3, 1882.

42. E. G. Lakeman, Modbury. Stoves and furnaces. Jan. 4, 1882.

46. W. Haughton, Temple. Open fireplaces or grates. Jan. 4, 1882.

54. J. Wetton, Abergavenny. A chimney-pot. Jan. 5, 1882.

65. H. H. Lake, London. Construction of bridges. (Com. by G. Eiffel, Paris.) Jan. 5, 1882.

NOTICES TO PROCEED

have been given by the following applicants, on the dates named.

Jan. 3, 1882.

3,820. F. G. Pearson, Dudley. Apparatus for facing or enamelling bricks or tiles. Sept. 2, 1881.

5,279. T. Ivory, Edinburgh. Heating and cooking by gas, &c. Dec. 2, 1881.

5,590. H. H. Lake, London. Door checks, &c. (Com. by L. C. Norton, Boston, U.S.A.) Dec. 21, 1881.

Jan. 6, 1882.

4,102. A. Bedborough, Westminster. Window sashes and frames. Sept. 23, 1881.

ABRIDGMENTS OF SPECIFICATIONS

Published during the Week ending January 7, 1882.

2,251. T. A. Brocklebank, London. Putting together or affixing stairs, steps, &c.

The stairs, &c., are said to be held together by clips or crutches, having holes or studs, and adjusted by springs or weights. (*Pro. Pro.*) May 28, 1881. Price 2d.

2,382. H. A. Bonneville, London. Shutter workers.

These have gearing by which the shutter is raised or lowered, consisting of a spur-wheel and pinion, actuated by a crank on a spindle brought down to the sill of the window. (Com. by F. D. Blake, Brooklyn, U.S.A.) (*Pro. Pro.*) May 31, 1881. Price 4d.

2,385. H. J. Haddan, Westminster. Ventilator or chimney tops or caps.

These consist of two cone frustrums, provided with a conically-shaped cap, supported from the upper cone frustrum. The lower frustrum has an air-tube inside, and is pierced by a number of holes at the level of the top of the air-tube. (Com. by E. J. Evans, Toronto, Canada.) (*Pro. Pro.*) May 31, 1881. Price 2d.

2,406. W. Chrystal, London. Chimney-tops or ventilators.

A number of upright plates are fixed radially round the central thoroughfare, and between each two are a number of upwardly-inclined deflecting plates or louvres. May 31, 1881. Price 6d.

2,443. C. H. von Ullner, London. Apparatus for regulating the flow of water, &c.

This is applicable chiefly to water-closets, &c., and consists of a syphon, which is brought into action by a movable box, which is raised by a lever, and fills the syphon. (*Pro. Pro.*). June 3, 1881. Price 2d.

2,464. J. Taylor, London. Tiles.

In order to lighten the roof, by not requiring so many tiles, these are made of hexagonal shape, so that they do not overlap so much as the ordinary tiles do. They are secured by a single hook, which passes through the lower tile to the shoulder, leaving the neck projecting, to secure the tile above. (*Pro. Pro.*) June 4, 1881. Price 2d.

Oldham.—Messrs. Platt Bros. & Co., the machinists, have determined to try the electric light in the moulding and joinery portion of their premises at Werneth.

* Compiled by Hart & Co., patent agents, 28, New Bridge-street, E.C.

THE BRIGHTON SANITARY EXHIBITION.

SIR,—Exhibitors are often unreasonable, no doubt, but this altogether fails to account for the indignant feelings entertained by a large proportion of London and other exhibitors at Brighton. A protesting circular, issued just before the close, met with very general approval.

Our own exhibits were not only not examined, but were not even inspected by the judges. We, therefore, have no award whatever, although there were awards of four grades, and the chairman of our section was chairman at Eastbourne, where we had an award of the first class. As it is our intention to take legal proceedings to recover the whole of our expenses, the matter will probably undergo a thorough investigation, and Brighton will have to be more careful another time. The failure is the more to be regretted, as the exhibition has, in other respects, been a great success.

FREDK. EDWARDS & SON.

INVADED BY ANTS.

SIR,—Allow me to make known, through your paper, an awful epidemic, in the hope that some one will suggest a remedy, and as I am not the only sufferer, the public will be greatly benefited thereby. I have lived in this house (near Onslow-gardens) for some years, and have made alterations and additions from time to time. The basement being overrun with rats and mice, I had the flooring joists and sleeper-walls taken up, and concreted the whole of the flooring of the basement. This soon proved an effective remedy, and we had no more visitors in the shape of rats and mice. About eighteen months after this we noticed, for the first time, some ants, and thought we had only imported these few from a baker's close by, but we soon found out that they were marching all about the dressers, &c. I then sent my family away, as I felt certain I could cure them by painting and stopping up every crevice, including ceiling and cement flooring. After a lapse of about a month, however, we found out the urgent visitors liked us as much as ever. I then had the walls plastered with Parian cement, thinking I was sure to stop them coming through some unobserved crevice, but found it useless, and have since tried everything that a practical mind could suggest, such as watching their movements, as they have got a regular place of assembly on the warm hearth, where they come marching from all quarters of the kitchen in regular lines; by throwing turps all over them and setting light to it; brushing them up with a wet paint-brush; laying Cayenne pepper all about the place, and continually washing the whole place with strong soda water and soft soap, until now it has come to such a pitch that either I have to get out of the place or find a means for their destruction. What can be done? H. S.

ANTHRACITE.

SIR,—In your issue of the 24th ult., I see a warning from "C. E." against the use of anthracite coal for domestic purposes. Any one unacquainted with such matters might suppose from "C. E.'s" statement that the generation of carbonic acid was peculiar to anthracite coal, whereas it is common to all; and I am not aware that we can burn any carbonaceous matter without producing it. But, as regards the purity of our rooms, it is of little importance what fuel we burn; where the means of carrying away the noxious gases are efficient,—and they certainly may be so,—we are safe, otherwise we must suffer.

In my opinion, the use of anthracite offers the best means at present within our reach for the abatement of smoke. Of its practical use and cheerful smokeless appearance, each may judge for himself by studying the present exhibition at South Kensington. As regards its unwholesomeness or otherwise we may surely all be content to wait the result of tests conducted by a body of scientific gentlemen who will shortly enlighten us with their report. In the meantime I earnestly submit that it is most desirable that nothing should be said or done which may, however unintentionally, be calculated to create premature prejudices and unfounded fears.

I for one have great faith in the present movement, and, though reaching fast my "three score years and ten," still hope to enjoy the comfort of a warm room, a cheerful fire, and pure air.

S. R.

Costly Mortar.—News has been received at Accra confirming the original report of the murder of 200 young girls, by the King of Ashantee, for the purpose of using their blood to mix with the mortar employed in the building of a new palace. It is understood that the girls were obtained from some neighbouring tribes, on whose town raids were made by the king's followers in order to raise the required number of victims. How long are such monsters to be endured?

CHURCH-BUILDING NEWS.

Ratby.—The parish church of Ratby, in the diocese of Peterborough, has been re-opened, after having undergone a partial restoration under the superintendence of Mr. Nicholas Joyce, architect, Stafford. The whole of the roofs have been renewed and covered with local slates. The nave and aisles have been fitted up with new benches of pitch pine, and the chancel with stalls of oak. A new vestry, with chamber for heating apparatus underneath, has been constructed in the north side of the chancel. The old brick porches have been removed and a new porch of stone built on the north side. The nave arcade has been restored, and the decayed stonework in the walls, as well as in the windows, doorways, plinths, and string-courses, has been cut out and replaced with new stone. In the floor of the church were a large number of memorial slabs; these have been replaced in the positions they formerly occupied in the passages, the spaces between the slabs being made up with new slate paving. The pulpit is of Caen stone, on a shaft of red stone; it is circular in plan, and has a richly-carved capping; in front are figures in low relief of St. Philip and St. James-the-Less. A stained-glass window by Mr. Francis A. Oldaker, of Epsom, has been placed in the south aisle as a memorial to the Geary family. The Committee have already expended over 3,000*l.* on the work. The contractor is Mr. James Stanford, of Ashby-de-la-Zouch. The hot-water apparatus is the work of Messrs. Messenger, of Loughborough, and Messrs. Brawn & Son, of Birmingham, have executed the ironwork.

Books.

Authorship and Publication: a Concise Guide for Authors in Matters relating to Printing and Publishing. London: Wyman & Sons.

ALTHOUGH intended chiefly for those who desire to send forth their thoughts or knowledge through the press, or, at any rate, are young authors, Messrs. Wyman's little volume contains matter which the oldest hand may find useful. It gives not merely those particulars concerning paper, printing, binding, and publishing, the preparation of "copy," and the corrections of proofs needed by the tyro, but it treats of the best modes of illustrating books, and of the law of copyright, and contains a valuable Bibliographical Appendix, including a list of books which give outlines of all the published literature of different subjects. It is an excellent specimen of printing and "getting up," and will doubtless, of itself, send many customers to their well-appointed establishment in Great Queen-street.

VARIORUM.

THE two volumes of "The Letters of Charles Dickens," edited by his sister-in-law and his eldest daughter, when published some short time ago (Chapman & Hall, Limited), received from us unqualified commendation. A third volume is now issued by the same publishers, and we give it as hearty a welcome as we did to its predecessors. It contains a number of delightful letters, and scarcely one that does not contain a characteristic touch very properly preserved. The volume includes the letters addressed to the late Lord Lytton, which could not be obtained in time for the previous volumes. Miss Dickens and Miss Hogarth have done well their labour of love.——"The First Book of Knowledge," by Fredk. Guthrie, F.R.S. (London: Marcus Ward & Co.), will be found useful. The author says, at starting, "Clay is a stuff. A brick is a thing. I want boys and girls, and so, by and by, everybody, to know something about stuffs and things. . . . . So I take such a house as most of us live in and show, first, of what stuffs, and how, its parts are made." A great deal of elementary knowledge is communicated, but Mr. Guthrie should have called in an architect to read with him, and he would then have avoided a number of slips which enable much less instructed persons than himself to grin. For example, instead of saying, as he desired:—PUTTY. "To fix panes of glass in sashes, putty is generally used; he thus misdirects his good little boys and girls,—"PUTTY.—To fix windows in their frames, putty is generally used." However, this, and such as this, are but specks, and we would gladly aid the circulation of the book.——The sale in England of American serials appears to be spreading. *The Monthly Index* (Spruce-street, New York) says that 10,000 copies of the Christmas number of *St. Nicholas* have been sold here on the present occasion, 8,000 being the usual number. *St. Nicholas* is a well-illustrated magazine for young folks, of which Warne & Co. are the London publishers.——A novelty in magazine literature has this year been introduced in *Cassell's Magazine*, under the title of the "Family Parliament." The discussions are exciting interest, and a new debate, we see, is to be opened in the February number on the question, "Are Early Marriages Unthrifty?" The debates are open to all readers of the magazine.

Miscellanea.

A Harbour of Refuge.—The Rev. Francis Gell, the vicar of Lydd, writes:—"Another serious casualty in the crowded Downs confirms the opinion expressed long ago by the Great Duke, when he was Warden of the Cinque Ports, that a harbour of refuge at Dungeness is essential to the safety of our mercantile marine. When that opinion was first delivered the carrying trade of England had not reached anything like its present gigantic dimensions. The President of the Board of Trade told us, the other day, that we have now invested in our shipping a hundred millions of money and 200,000 men, to whom wages are annually paid to the amount of ten millions; not to speak of 100,000 men, to whom seven millions more are paid for building and repairing ships. In the twenty-six years last past an army of the finest men in the world have been drowned on the coasts of England,—18,550 men! A large part of the losses in the Downs, and on the awful Goodwins, would be averted if a breakwater and harbour of refuge were run out from Dungeness, behind which ships of any tonnage might lie at anchor in these terrible south-westerly gales.

London Association of Foremen Engineers and Draughtsmen.—On Saturday the twenty-ninth annual meeting of the members of the London Association of Foremen Engineers and Draughtsmen was held at the City Terminus Hotel, Cannon-street, under the presidency of Mr. Joseph Vincombe (of the Royal Arsenal, Woolwich). After the election of some new members, the auditor's half-yearly report and balance-sheet was submitted to the meeting, which showed gross receipts (including members' contributions of 135*l.* 3s. 6d., and balance carried forward of 62*l.* 19s. 9½d.) of 221*l.* 5s. 9½d. The expenditure of the period under review was only 78*l.* 3s. 1d., leaving a balance in the treasurer's hands of 143*l.* 2s. 8½d. The ordinary fund amounted (with the sum in the hands of the treasurer) to 604*l.* 2s. 0½d. Of the superannuation fund, the total amount, which was invested in Three per Cent. Consols, was 21,419*l.* 18s. 5d. The payments to members during the six months under that account were 37*l.* 7s. 6d. The widow and orphans' fund reached a sum of 92*l.* 14s. 2d.

College of Practical Engineering.—We have received from this College at Muswell-hill a copy of a pamphlet on the subject of engineering education. It is written in the form of a letter to a friend by one of the pupils of the College, and describes the means in force for imparting engineering instruction to students both at home and abroad. It seems sensibly written, but it strikes us the College will require stronger testimonials than a letter from one of its pupils. The new college was established in the autumn, under the auspices of a number of practical engineers, and the fact was mentioned by us at the time.

The National Freehold Land Society.—The thirty-second annual report just now issued shows that the subscriptions during the year were 631,395*l.*; the withdrawals, 493,976*l.*; and the members' capital at the end of the year was 1,666,930*l.* The freehold and leasehold securities and properties have been increased to 1,408,737*l.*, and the convertible securities to 327,545*l.* The rate of profit on uncompleted shares was three per cent., and of the interest on completed shares four per cent. throughout the year, the gross profit for the year being 74,732*l.*

All Saints' Church, Derby.—A new set of quarter chimes has just been erected in this church, which play upon the whole of the ten bells, the largest of which is 32 cwt. The whole of the work has been carried out by Messrs. Smith, Midland Clock Works, Derby.

Measham.—A new Roman Catholic chapel has been erected here, at the cost of the Countess of Loudoun and her family, who have also provided a presbytery conveniently adjacent. The chapel is of red pressed brick, with stone dressings. The front next the road has a doorway in the centre leading into a spacious entrance lobby, and in a richly-moulded heading over it has been fixed a corbel to carry a life-sized statue of St. Charles Borromeo—the patron saint of the chapel,—and there is also a rich canopy with battlemented cresting in the sill of the three-light traceried window of elaborate design which is placed in the wall above the statue. The nave,—which is to be also used as a school,—will provide sitting accommodation for about 150 persons. It is well lighted from the sides, and is covered with an open-timbered roof. The chancel is lighted by single-light cusped-headed windows at the sides and a quatrefoil window in the gable. In the opening between the chancel and the nave is placed a revolving shutter so as to shut the nave off when used for school purposes. The contractors for the work were Messrs. W. Beckworth & Son, of Whitwick, who completed the work some weeks before the expiration of the contract time. The statue of St. Charles Borromeo has been executed by Mr. R. L. Boulton, of Cheltenham, and the tabernacle by Messrs. Vaughan & Brown, of London. Mr. Stone, of Ulverston, furnished the revolving shutter, which is of great width. Mr. Thompson, of Liverpool, provided the sittings, and the whole of the works have been designed and carried out under the superintendence of Mr. C. G. Wray, architect, London.

St. Botolph's Church, Bishopsgate.—Two painted glass windows have been placed in screens at the east end of the church. They are about 12 ft. wide by 6 ft. high. In the window on the south side is "The Last Supper," and in that on the north side "St. Paul preaching at Athens." They are both the work of Messrs. A. L. Moore & Co., of Southampton-row, London. The following inscription is placed at the bottom of the screens:—"These windows were erected out of the fund for beautifying the Parish Church, bequeathed by Joan Wood, 1600, and Joan Ford, 1644. William Rogers, M.A., Rector. Frederick Dadswell and Frederick Collier, Churchwardens. 1882."

TENDERS

For the erection of a school-chapel, Chester-road, Sunderland. Mr. H. T. Gradon, architect. Quantities by Mr. G. D. Irwin:—

T. P. Snaftoe, Sunderland	£1,976 0 0
Swan & Co., Sunderland	1,948 10 0
G. H. Hodgson, Sunderland	1,900 0 0
J. Coulson, Sunderland	1,850 0 0
Hirst & Sons, Sunderland	1,620 0 0
J. L. Miller, North Shields	1,565 15 6

For the addition of a billiard-room at Langton House, East Mousley, for Mr. G. le Doux. Messrs. F. Percy Harrison, Cooper, & Co., architects. Concrete floor and walling to ground-level not included:—

Alderton	£366 0 0
Moore	313 5 0
Patman & Fotheringham	300 0 0
Dashwood, Farnham (accepted)	224 0 0

For new 5-qr. brewery buildings at Burton-on-Trent, for Mr. Peter Walker. Messrs. Scamell & Colyer, architects. Quantities by Messrs. R. L. Curtis & Sons:—

No. 1 Contract.—Buildings only.

J. Morter, London	£25,229 0 0
Kirk & Randall, Woolwich	23,645 0 0
Davies Bros., Wrexham	23,399 0 0
Dennett & Ingle, Nottingham	23,397 0 0
J. Garlick, Birmingham	22,994 0 0
J. Browe, London	22,404 0 0
Howell & Son, Bristol	22,307 0 0
H. Lovatt, Wolverhampton	22,036 0 0
Dakin & Smith, Lichfield	21,895 0 0
J. Hartley, Birmingham	21,839 0 0
Lowe & Sons, Burton (accepted)	20,409 0 0

No. 2 Contract.—Girders and Columns.

Patent Shaft Company, Smethwick	£6,325 0 0
Laidlaw & Son, Glasgow	5,930 0 0
Horseley Iron Company, Tipton	5,350 0 0
Cookey & Sons, Frome	5,138 0 0
Cochrane & Co., Dudley	5,047 0 0
Thornewill & Warham, Burton	4,771 0 0
Handyside & Co., Derby	4,709 0 0
Eastwood & Swingler, Derby (accepted)	4,376 0 0

No plant included in the above tenders.

For the construction of road and drainage work on the United Land Company's Earlsmead Estate:—

J. W. Simpson	£900 0 0
J. G. B. Marshall	833 0 0
W. Norr's	825 0 0
Unsigned tender	790 0 0
G. Mitcham	750 0 0
C. Taylor	720 0 0
Ford & Everett	700 0 0
G. Acock	693 0 0
Wilkes & Co.	670 0 0
James Pizzey	640 0 0
James Bloomfield	539 0 0
Jesse Jackson (accepted)	535 0 0

For New offices, Chatham, for the Brompton, Chatham, Gillingham, and Rochester Water Company. Mr. E. W. Stephens, architect:—

Prior & Co., Maidstone	£3,377 10 0
E. Vaughan, Maidstone	3,356 0 0
Avard, Maidstone	3,323 0 0
Cox Bros., Maidstone	3,276 0 0
Wallis & Clements, Maidstone	3,259 0 0
Callund & Son, Rochester	3,215 0 0
Toser, Brompton	3,120 0 0
Naylor & Son, Rochester (accepted)	3,050 0 0

For new school and lecture-hall, Leytonstone. Mr. John Edward Sears, architect. Quantities by Mr. Fleetwood:—

		Gables.
Tillett	£2,484 0 0	£81 0 0
Lanham	2,467 0 0	90 0 0
Smith	2,414 0 0	83 0 0
Sayer	2,354 0 0	88 0 0
Ashby Bros.	2,332 0 0	88 0 0
Ford Bros.	2,331 0 0	75 0 0
Marsland	2,295 0 0	80 0 0
Gregar	2,294 0 0	80 0 0

For alterations, &c., at 6, Queen Anne-street, for Mr. W. A. Meredith. Mr. Mark H. Judge, architect:—

Andrews (accepted)	£152 5 0

For adapting the premises of the late Uxbridge Brewery, for a steam laundry, for the Uxbridge Steam Laundry Company, Limited. Mr. George Eves, architect:—

Kearley, Uxbridge	£809 0 0
Brown & Son, Harefield	745 0 0
Hardy, Cowley	635 0 0
Taylor, Uxbridge	632 0 0
A. & B. Hanson, Southall (accepted)	631 12 0

For engineering work in connexion with the erection of two infirmaries at the Asylum for Imbeciles, Darenth, Kent, consisting of sanitary fittings, tanks, hot-water apparatus, hydraulic lifts, &c., for the managers of the Metropolitan Asylums Board. Messrs. A. & C. Harston, architects:—

Wells & Co.	£3,744 0 0!
Turnbull	3,500 0 0
Stidder	3,500 0 0
Bradford & Co.	2,500 0 0
Bunnett & Co.	2,500 0 0
Rosser & Russell	2,498 0 0
Goddard & Massey	2,367 0 0
Mather & Armstrong	2,210 0 0
J. F. Clark	2,170 0 0
Benham & Son	1,980 0 0
Siebe, Gorman, & Co.	1,910 0 0
May Bros.	1,850 0 0
Coles & Matthews, Coventry (accepted)	1,835 0 0!

For the Norfolk and Norwich Agricultural-hall, Norwich:—

Haws	£13,900 0 0
Youngs	12,646 0 0
Wilkin	12,409 0 0
Hubbard	12,30) 0 0
Wagg	11,970 0 0
Smith & Rust	11,947 0 0
Lacey	11,675 0 0

For alterations and additions to the Independent Chapel, at Bushey, Herts, for the trustees. Mr. H. H. Bridgman, architect:—

Messrs. Scales & Norris, Hertford (accepted).

For alterations to St. Stephen's Schools, Westminster, for the Baroness Burdett-Coutts. Mr. H. H. Bridgman, architect:—

G. J. Chapple (accepted).

For rebuilding "The Mecca," Railway-place, Fenchurch-street, for Messrs. A. Jimenez & Son. Mr. H. H. Bridgman, architect. Quantities by Mr. F. Thomson:—

Dixon	£4,070 0 0
Dove Bros.	3,875 0 0
Colls & Sons	3,570 0 0
Richardson Bros.	3,548 0 0
Wall Bros.	3,546 0 0
Manley	3,477 0 0
Drew	3,470 0 0
White	3,449 0 0
Perry & Co.	3,397 0 0
Beale	3,377 0 0
Kirk & Randall	3,327 0 0
Scrivener & Co.	3,247 0 0
Toms	3,222 0 0
Ashby & Horner (accepted)*	3,1:5 0 0

* Received late.

For new shop and premises at 63, Leman-street, Whitechapel. Mr. J. Lewis Holmes, architect:—

Moyle & Son	£1,767 0 0
Kirk	1,760 0 0
Julian & Co.	1,697 0 0
Ashby & Horner	1,566 0 0
Roberts	1,542 10 0
Merritt & Ashby	1,533 0 0
Gould & Brand	1,464 0 0

For two houses and shops at Lewis-grove, Lewisham. Mr. Horace T. Bonner, architect. Quantities by Mr. W. C. Robson:—

Higgs, London	£1,276 10 0
Guest, Forest-hill	1,248 0 0
Hughes, Lewisham	1,240 0 0
Holloway, New-cross	1,229 0 0
Jerrard, Lewisham	1,190 0 0
Kennard, Lewisham (accepted)	1,168 0 0

For two houses and shops at Westow Hill, Norwood, for the Devon and Cornwall Dairy Farm Company (Limited). Mr. Horace T. Bonner, architect. Quantities by Mr. F. W. Miller:—

Bowyer, Norwood	£1,450 0 0
Johnson, London	1,398 0 0
Heaton, London	1,389 0 0
Smith, Kensington	1,357 0 0
Holidge & Stuart, Norwood	1,234 0 0

For additions, Bank-top Board Schools, Darlington. Mr. G. G. Hoskins, architect. Quantities by Mr. H. T. Neilson:—

Watson Bros., Darlington (accepted).

TO CORRESPONDENTS.

S. & C (first arrived too late; in a second envelope).—H. T.—W. P.—A. & B. H.—H. T. G.—G —J. S. P.—An Englishman.—S. S.—S. A.—A. & C. H.—H. H. B.—H. & K.—P. C.—C. K.—W. H. P.—J. Q.—F. M. & Co.—W. M.—T. E. P.—G. S.—J. G. N.—W. C.—B. & O.—H. C. S.—A. M. P.—S. F.—3. R.—J. W. S.—M. H. J.—F. C.—A. M. O.—A. F. (will be considered).—A. M. (shall appear).—H. L. V. (next week).—G. R. (next week).—J. R. R. (next week).—R. F. (next week).

All statements of facts, lists of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

We are compelled to decline pointing out books and giving addresses.

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